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Administrative and budgetary aspects of the financing of United Nations peacekeeping operations

Information and communications technology

Second report of the Advisory Committee on Administrative and Budgetary Questions on the proposed programme budget for the biennium 2012-2013

I. Introduction

1. The Advisory Committee on Administrative and Budgetary Questions has considered the following reports relating to information and communications technology:

(a) Third progress report on the enterprise resource planning project (A/66/381);

(b) Enterprise information and communications technology initiatives for the United Nations Secretariat (A/66/94).

2. During its consideration of the reports, the Advisory Committee met with the Deputy Secretary-General and other representatives of the Secretary-General, who provided additional information and clarification. The Committee was also provided with substantial additional information in response to its queries, which, where relevant, has been reflected in the paragraphs below.

II. Enterprise resource planning project

3. The third progress report (A/66/381) of the Secretary-General was submitted pursuant to General Assembly resolution 64/243, in which the Assembly requested the Secretary-General to continue to ensure that the Assembly is kept informed, on an annual basis, of the progress regarding the enterprise resource planning project (Umoja).

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4. The report of the Secretary-General provides information on the status of the project, the activities accomplished during the reporting period (1 August 2010-31 August 2011) and proposals for the future direction of the project. A major setback is the anticipated two-year delay in the full implementation of Umoja, which is now projected for the end of 2015 instead of 2013. In his report, the Secretary-General puts forward measures intended to mitigate the effects of the delay, in particular, changes to governance and project oversight and a phased implementation approach. He indicates that, given the critical dependency of the adoption of the International Public Sector Accounting Standards (IPSAS) on the timely implementation of the enterprise resource planning system, the first phase, Umoja Foundation, will include functionality to support IPSAS requirements. Umoja Foundation is planned to be piloted in January 2013 and deployed in clusters across the Organization by December 2014, in time for the transition to IPSAS. The second phase, Umoja Extension, is planned to be deployed by December 2015, and will deliver the remaining functions, including human resources management and budget formulation.

5. As regards project governance, the Advisory Committee was informed that the Umoja Steering Committee was being chaired by the Deputy Secretary-General on an ad interim basis following the resignation of the Under-Secretary-General for Management on 16 June 2011. It notes that the membership of the Steering Committee has been expanded to include the Chef de Cabinet, as well as the Office of Legal Affairs and the Office of Internal Oversight Services in observer capacity. As indicated in the report, the Management Committee has also increased its monitoring of project progress, especially with regard to the interdependencies with the IPSAS implementation project. The Secretary-General states that, to mitigate risks of further delay, he is implementing streamlined procedures to expedite recruitment and developing contingency plans for managing risks, should certain critical functions not be completed in time for IPSAS adoption in 2014 (see also A/66/536). The Secretary-General affirms that the revised approach is consistent with the "pilot first" implementation endorsed by the General Assembly in paragraph 113 of its resolution 64/243 and will deliver the comprehensive functionality for driving management reform and organizational transformation as originally envisioned. He also states that the overall approved resource requirements for project implementation remain unchanged, at $315.8 million.

6. The Advisory Committee was informed at the time of its review of the proposed programme budget for the biennium 2012-2013 that the Secretariat was anticipating delays in the implementation of the enterprise resource planning project. It was also informed at that time that the project had been without a Director since June 2011, and furthermore that the Under-Secretary-General for Management had resigned as Chair of the Umoja Steering Committee. In its first report on the proposed programme budget for the biennium 2012-2013, the Advisory Committee expressed disappointment and provided preliminary comments on the status of the project (A/66/7, paras. 123-125 and VIII.7-13). The Committee commented further on this issue in the context of its consideration of the Secretary-General's fourth progress report on adoption of IPSAS (see A/66/536).

7. In paragraph 8 of his current progress report (A/66/381), the Secretary-General elaborates on the factors causing the delay in the implementation of the Umoja project. He indicates that more time was required than originally planned for procuring the enterprise resource planning software; analysing current operations in

order to transition to the future operating model; completing the design phase; and gaining acceptance of the system by the business process owners and end-users. The cultural and institutional changes required to move to the new operating model are also reported to have proven more complex and challenging than anticipated. Other difficulties cited by the Secretary-General include the time-consuming process for the recruitment of the project team members and subject matter experts despite the implementation of measures to expedite recruitment, as well as the securing of independent consultants with the appropriate expertise. He also states that the capacity of the design team was constrained by the limited availability of specialist knowledge of new enterprise resource planning software.

8. **While recognizing the challenges posed by the complexity, scale and scope of the project, the Advisory Committee considers that the anticipated two-year delay in its completion clearly reflects a failure in management of the project. The Committee regrets that the Secretary-General did not provide information earlier to the General Assembly as to the serious problems affecting the implementation of the project. It is deeply disturbed and dismayed by the apparent lack of awareness and foreknowledge in the Organization as to the actual status of the project, which, in its view, points to the inadequacy of the project governance, oversight and reporting arrangements. The Committee is also concerned that the concurrent departure of the Director of the project and the resignation of the Chair of the Steering Committee in June 2011 left the project without leadership and with a weakened management structure at a critical juncture, when the project was experiencing significant delays.**

9. **Furthermore, in the Advisory's Committee's view, many of the factors identified by the Secretary-General as the causes of the delay, such as the length of time required for recruitment, constitute well-known areas of risk and vulnerability, which could have been foreseen and avoided through proper project planning and prompt management action. In light of the strategic importance of the project and the potential impact of any delay in terms of cost escalation, as well as on the planned transition to IPSAS in 2014, the Committee regrets in particular that closer attention was not paid to anticipating and resolving such project management issues promptly and to ensuring that the project structures were functioning properly. In this connection, the Advisory Committee also emphasizes the important role of the project Steering Committee in guiding implementation of the project, supporting the Director of the project in securing the necessary resources, and facilitating decision-making and rapid resolution of issues. It also points out that the composition and membership of the Steering Committee was designed precisely to ensure that the key stakeholders were represented at a sufficient level of authority to take relevant decisions. The Advisory Committee is therefore disappointed that, despite the representation of senior managers on the Umoja Steering Committee, the project continued to face difficulties in areas such as the recruitment of staff, the release of subject matter experts and in gaining acceptance of the system by users and business process owners.**

10. **The Advisory Committee also considers that the Secretary-General's analysis of the factors causing the delay is incomplete. It is of the view that he should also have reviewed the impact of factors such as the adequacy and effectiveness of the project's governance, decision-making and risk management structures, as well as of the level of cooperation and coordination**

throughout the Secretariat. The Committee notes that the Secretary-General makes no attempt to attribute responsibility for the action, or lack thereof, leading to the delay, or to hold anyone to account for this situation.

11. **The Advisory Committee recognizes nonetheless the efforts made to address the delay and plans to accelerate the process, including the development of a revised implementation approach and the efforts aimed at strengthening the composition, leadership and role of the project Steering Committee, as well as enhancing oversight mechanisms. The Committee believes that, at this stage, all efforts must be directed towards ensuring that the project is firmly back on track, with a fully staffed team, and that all activities are delivered according to plan. It is also necessary that Member States have confidence that their investment is protected and are provided assurances that the project will be delivered in accordance with the revised timeline and within the approved budget. The Committee strongly believes that in order for such assurances to be credible, it is essential to demonstrate that lessons are fully analysed and effectively applied to ensure that the same mistakes are not repeated. To that end, the Committee recommends that the Secretary-General be requested to conduct a thorough internal review of the factors contributing to the delay in the project and to adjust operational controls accordingly and report thereon to the General Assembly in the next progress report.**

12. **With respect to the revised implementation approach, while the Advisory Committee accepts the Secretary-General's focus on the implementation of IPSAS in the first phase, it reiterates that Umoja is a key enabler underpinning the Organization's management reform agenda. It emphasizes that the significant investment made by Member States was justified, in part, on the basis of management improvements and reforms that Umoja would enable, including results-based management, risk management, a strengthened internal control framework and enhanced performance and accountability, as well as the enhanced efficiency and effectiveness in programme management that the system would allow. The Committee reiterates that these improvements remain essential organizational goals that must be achieved within the budget approved for the project (see also A/66/7, para. 125).**

13. **The Advisory Committee recognizes the challenges facing the Organization as it embarks on the simultaneous implementation of multiple major initiatives over a short period of time, including Umoja and IPSAS, which entail significant changes in working methods and will impact large numbers of staff across United Nations duty stations worldwide. It emphasizes that close cooperation and coordination is required at all levels of the Secretariat in order to meet organizational goals and ensure a successful outcome.**

14. In addition to the information on governance arrangements and the revised implementation approach, the report of the Secretary-General provides an update on progress made during the reporting period as regards the design phase and reengineering of business processes; the analysis and inventory of the existing systems to be replaced or interfaced to Umoja; the analysis of requirements in terms of customizations and extensions to the enterprise resource planning software; technical activities for implementation of enterprise resource planning

infrastructure; change management; and benefits realization. It also provides information on collaboration initiated with other United Nations entities, in particular the World Food Programme, and on opportunities for the realization of additional benefits through an alternative service delivery model.

A. Governance and accountability

15. The Advisory Committee notes that, at the time of its consideration of the third progress report, in October 2011, the Umoja Director post had yet to be filled. However, the Committee was informed that the Director was expected to be recruited by November 2011. **The Advisory Committee considers that the post of Umoja Director is crucial for ensuring the effective direction, planning and day-to-day management of the project, particularly at a time when major changes are occurring and important decisions on the direction of the project are being taken. It therefore urges the Secretary-General to ensure that the new Project Director is recruited without any further delay.**

16. In paragraphs 11 to 15 of his report, the Secretary-General describes the changes made to the Umoja governance structure following the resignation of the Under-Secretary-General for Management as Chair of the Umoja Steering Committee (see also para. 5 above). The chart in annex I to the report shows the modified governance model of the project. The key changes instituted include the following:

(a) The Steering Committee is chaired ad interim by the Deputy Secretary-General and its membership has been expanded to include the Chef de Cabinet;

(b) The Office of Legal Affairs and the Office of Internal Oversight Services are included in the Steering Committee in an observer capacity;

(c) The Management Committee has increased its monitoring of project progress, in particular with regard to the interdependencies with IPSAS;

(d) The Chief Information Technology Officer will guide the management of the project on behalf of the Steering Committee;

(e) A Business Owners Advisory Group will progressively replace the Process Owners Advisory Group as the project evolves from the design to the build and deployment phases;

(f) A Change Advisory Board has been established to monitor, control and document project changes.

17. From the figure in annex I to the report of the Secretary-General, the Advisory Committee notes that the Director of the project now reports to the Chief Information Technology Officer only. Under the previous governance model, which was last updated and reflected in annex III to the second progress report (A/65/389), the Director had two reporting officers: the Chair of the project Steering Committee on business processes and the Chief Information Technology Officer on day-to-day project management and technology issues.

18. The Advisory Committee enquired as to the expected duration of the interim governance arrangements and whether the Secretary-General intended to present a proposal in this regard for consideration by the General Assembly. It was informed

that once the new Director was on board, the Secretary-General would make a decision regarding the governance structure of the project in close consultation with the members of the Umoja Steering Committee and the Management Committee. An update on the project governance structure would be provided in the next annual progress report.

19. In his report, the Secretary-General states that the Umoja governance structure will ensure full accountability and clear lines of responsibility. Upon enquiry, the Advisory Committee was informed that Umoja remained a business project driven by business process demands, for which all Steering Committee members were collectively accountable. **While acknowledging the interim measures put into place to improve monitoring and oversight of the project (A/66/381, paras. 11-15), the Committee believes that much remains to be done to foster a culture of accountability and commitment to the project.** The Advisory Committee was informed by the Deputy Secretary-General that the Steering Committee was fully committed to putting Umoja back on the path to success, and that its members were prepared to take extraordinary measures to support the project within their areas of responsibility. **The Advisory Committee welcomes the commitment to the project proffered by the Umoja Steering Committee and expects that the members of the Committee will assume fully their responsibilities under the leadership of the Deputy Secretary-General (see also para. 5 above). The Committee recommends that the Secretary-General be requested to provide a permanent governance structure for the project as a matter of priority, no later than at the first part of the resumed sixty-sixth session of the General Assembly, including information on the responsibilities of the various actors involved in the governance of the project and the mechanisms for ensuring effective accountability.**

B. Revised implementation approach, timeline and current status

20. As indicated in paragraph 4 above, the Umoja implementation approach has been revised in order to mitigate the effects of the delay and accelerate progress, while giving priority to implementation of IPSAS by 2014. Under the revised approach, the enterprise resource planning system is to be deployed in two phases — Umoja Foundation and Umoja Extension. Details on the functions and scope of each phase are provided in paragraphs 40 to 47 of the report of the Secretary-General. A detailed timeline of the revised implementation plan is also provided in annex II to the report. The Advisory Committee notes that to date 317 business processes have been developed reflecting the requirements of the Organization, of which a total of 119 will be provided under Umoja Foundation and the remaining 198 under Umoja Extension. The Committee was provided with a table showing the processes to be included under each phase by functional group (see annex I). The Committee was also informed that the number of processes may evolve during the build phase as a result of the consolidation of processes or the business requirements of the Organization. However, a tight change control mechanism had been instituted in the form of the Change Advisory Board to ensure that any new requirements would be contained within the original scope of Umoja.

21. The functions and timeline of each phase can be summarized as follows:

(a) Umoja Foundation will provide the functions required to support the transition to IPSAS, including financial management and administrative controls;

certain central support services, such as sales and distribution, travel management and real estate management; and supply chain procurement logistics. The pilot will commence in January 2013 and be deployed in five successive clusters across the Organization by December 2014. As shown in annex I to the present report, the 119 processes of Umoja Foundation to be deployed comprise 68 finance, 13 central support services, 35 supply chain procurement logistics and 3 programme and project management processes. The Committee notes that certain existing systems, such as Galileo, will be temporarily retained and interfaced to Umoja Foundation to provide inventory management functions until the full functionality is provided in Umoja. It is indicated in footnote 9 of the report that it will be possible to ensure IPSAS requirements through a combination of enterprise resource planning software, legacy systems and manual workarounds;

(b) Umoja Extension will deliver the remaining functions aimed at enhancing planning and resource management, including: human resources management; budget formulation; force planning, demand planning and logistics execution; conference and events management; documents production and distribution; grants management; and sales and services to the public. The 198 additional processes to be provided under Umoja Extension comprise 61 human resources management, 56 finance, 33 central support services, 35 supply chain procurement logistics and 13 programme and project management processes. The human resources and budget formulation functions will be designed and built at the same time as Umoja Foundation, but will commence deployment in 2014. The design phase for the rest of Umoja Extension will recommence in 2013 and move into the build phase in 2014, with deployment planned for completion by the end of 2015.

22. The Secretary-General indicates in paragraph 18 of his report that during the reporting period the project team focused on the finalization of the documentation, prototyping and refinement of the design of the processes in the areas of finance, human resources, central support services, supply chain procurement logistics, and programme and project management. Upon enquiry, the Advisory Committee was informed that the final design was complete for all the processes relating to Umoja Foundation, as well as the human resources management processes to be implemented in the Umoja Extension phase. The final design of Umoja Extension was planned to commence in mid-2013, at which point minor adjustments to the remaining processes would be made, if required.

23. The Secretary-General further indicates in paragraph 40 of his report that the criteria for the selection and timing of deployment sites for each cluster will be guided by training needs, volume of transaction and business readiness of each location. The Advisory Committee was informed that the selection of the missions/organizational units to be included in each cluster would be based on the geographical proximity of the sites, the alignment of their time zones and the size and complexity of the sites, and would aim to achieve economies of scale in predeployment, training and post-implementation support activities. The recommended locations for the pilot site were the United Nations Interim Force in Lebanon (UNIFIL) and the Economic and Social Commission for Western Asia (ESCWA) because of their close geographical proximity in Lebanon. Furthermore, UNIFIL was considered to be suitable for pilot testing because it was a moderate-sized peacekeeping mission with a well-established technical infrastructure, and also served as a regional information technology hub and training centre. The pilot

would also include the Field Procurement Section of the Procurement Division, which manages Headquarters-based contracting for common commodities and services via systems contracts and provides essential services for UNIFIL and ESCWA operations.

24. The Advisory Committee was also informed that in order to complete the necessary tests and preparatory activities, the enterprise resource planning software and infrastructure would have to be installed at the enterprise data centres at Brindisi, Italy, and Valencia, Spain, six months prior to deployment of the pilot in January 2013. Discussions on this issue were currently under way between the Umoja project team, the Office of Information and Communications Technology, and the Department of Field Support.

25. In paragraphs 58 and 59 of the report, the Secretary-General provides information on opportunities for consolidating administrative functions and services and achieving greater economies of scale through alternative service delivery approaches. He indicates that the next progress report will provide information on the outcome of an assessment of the current operating environment, including potential benefits and areas of improvement, as well as a detailed business case and implementation plan. The Advisory Committee notes from paragraph 59 of the report that any service delivery model adopted at the United Nations must be able to support the model for delivering field support. **The Committee looks forward to receiving the Secretary-General's proposals for improved and cost-effective service delivery approaches. It trusts that any new approaches proposed will be compatible with the business process model developed for the implementation of Umoja.**

26. **As regards the temporary retention and adaptation of legacy systems to support IPSAS pending availability of full functionality in Umoja (see para. 20 (a) above), in its report on the IPSAS implementation project, the Advisory Committee cautioned about the need to ensure that the implementation of temporary solutions did not divert vital resources away from the implementation of Umoja, thereby compounding risks of delays and cost escalation in the delivery of Umoja Foundation (A/66/536, para. 16).**

C. Procurement

27. From the detailed project timeline shown in annex II to the report of the Secretary-General, the Advisory Committee notes that procurement is under way of the systems integration services for the build and implementation activities of the first phase, Umoja Foundation. Upon enquiry, the Committee was informed that the Procurement Division had advertised four separate rounds of expressions of interest and that the Secretariat was finalizing its statement of work for the build phase. The solicitation was to be released in the immediate future and was expected to be completed in the first quarter of 2012. **In view of the implementation timeline of Umoja Foundation and the planned start of the pilot at the beginning of 2013, the Advisory Committee urges the Secretary-General to ensure that all the necessary steps are taken to secure the services of the systems integrator in a timely manner so as to avoid any risks of further delays to the project.**

D. Recruitment and staffing

28. The Secretary-General indicates that despite the implementation of measures to expedite recruitment, the hiring of United Nations staff members and subject matter experts remains a time-consuming factor causing delays in the project (see para. 7 above). The Advisory Committee was informed that, on the basis of the current projected requirements for the bienniums 2012-2013 and 2014-2015, it would be possible to deliver the project within the approved budget of $315.8 million on the condition that all of the 90 project and 66 subject matter expert positions were filled by April 2012 (see also paras. 29-35 below). The Committee was also informed that as of September 2011, 53 of the 90 Umoja project positions and 17 of the 66 subject matter expert positions had been filled (see table 1 below).

29. The Advisory Committee was informed that measures to expedite recruitment had been taken following the decisions made by the Steering Committee at its meeting on 16 November 2010 (see annex II below). Since July 2011, the Office of Human Resources Management had made available additional special measures for recruiting Umoja staff, allowing advertisement of job openings for 15 days only and without a requirement for review by the central review bodies, on the condition that employment of the recruited staff would be limited to service with the Umoja project. The Committee was informed that this arrangement was expected to yield positive results in terms of accelerating the recruitment process. It was indicated that, as of 10 October 2011, the recruitment process was well under way; at the time of the Committee's consideration of the report of the Secretary-General, recruitment for 15 vacancies was in process. **The Advisory Committee notes the efforts made to adapt recruitment procedures in response to the specific circumstances of and challenges faced by the Umoja project. In this connection, the Committee recalls that in his second progress report, the Secretary-General had stated that timely recruitment had been a challenge and had been regarded as a significant project risk factor (A/65/389, para. 54). Given that the difficulties in filling vacant Umoja positions partly contributed to the delay in the implementation of the project, the Committee considers this situation should have been addressed in a timely manner.**

30. With respect to the subject matter experts, the Advisory Committee was informed that an active outreach programme was in place for identifying the staff members required for the project and for gaining the support of the concerned departments, offices, and field missions in the release of those staff members when needed by the project.

31. The Advisory Committee was provided with the following table showing the Umoja recruitment plan for staff and subject matter experts from September 2011 to May 2012:

Table 1
Umoja recruitment plan for staff and subject matter experts from September 2011 to May 201

	September 2011	*October 2011*	*November 2011*	*December 2011*	*January 2012*	*February 2012*	*March 2012*	*April 2012*	*Ma 201*
Staff	53	66	70	74	76	78	82	86	9
Subject matter experts	17	16	17	21	28	38	48	58	5
Total	**70**	**82**	**87**	**95**	**104**	**116**	**130**	**144**	**14**

32. **The Advisory Committee notes that timely recruitment of staff and subject matter experts represents a critical requirement for the delivery of the project within the approved budget and the timeline of the revised implementation approach (see para. 28 above). It is therefore of paramount importance that the Umoja project positions are filled on time and that the required subject matter experts are made available to meet the requirements of the timetable of the project. To that end, the Committee recommends that the Secretary-General be requested to closely monitor the effectiveness of the expedited recruitment procedures and ensure that they are producing the desired results. It stresses that immediate action must be taken to address any delays in meeting the targets of the Umoja recruitment plan for filling posts and subject matter positions (see table 1 above). The Secretary-General should also be requested to provide in his next progress report details on the month-to-month evolution of the status of staffing and any further actions taken to keep the process on track.**

33. The Advisory Committee recalls that subject matter experts have an in-depth knowledge of their functional areas and the requirements of their departments/offices and are needed to assist the Umoja project team on a temporary basis in system design, data conversion, interface development, report generation and testing of the enterprise resource planning system. They also have a key role to play in training and supporting users during deployment and in the post-deployment period. The contributions of subject matter experts range from a few hours to several months at a time. The positions of the subject matter experts are filled on a temporary basis if their continuous absence from their regular functions exceeds four weeks. The Committee had previously been informed that without such a provision, there was a risk that managers would refuse to release subject matter experts (see A/64/7/Add.9, paras. 82 and 83).

34. **The Advisory Committee is concerned that as the duration of the implementation period has been increased from 2 to 3 to 4 to 5 years, new challenges in recruiting subject matter experts may arise. In particular, it may become increasingly burdensome for departments/offices to release their subject matter experts to the project for extended periods. The Committee urges the Secretary-General to proactively take the necessary steps to ensure the continued availability of the expertise provided by subject matter experts that is needed by the project. Furthermore, the Committee considers that it is in the interest of the contributing departments/offices to provide their most knowledgeable staff to support the design and implementation of the Organization's new operating model so as to ensure that it meets their requirements, as well as to develop their internal expertise and knowledge of**

the new system. The Committee also emphasizes the important role of the members of the Umoja Steering Committee in supporting the recruitment of the subject matter experts required for the project. The Advisory Committee recommends that the Secretary-General be requested to provide details on the status of the recruitment of subject matter experts in his next progress report.

35. The Advisory Committee requested additional information in support of the Secretary-General's statement in paragraph 8 of his report, that the limited availability of specialist knowledge of new enterprise resource planning software had constrained the capacity of the design team and was one of the causes of the delay in the project. It was informed that, to complement specialist knowledge provided by the systems integrator, the project relied on specialists retained as independent consultants to supplement Umoja staff on an "as-required" basis. However, the United Nations had faced competition for scarce specialists with others in the market who offered rates that were significantly higher than those of the United Nations for individual consultants. The Committee was further informed that the project team had used well-known international publications and specialized websites for the recruitment of such specialists, but often lost potential candidates to competition as a result of the lengthy procedures and long recruitment times. The representatives of the Secretary-General also stated that the inability to secure specialist consultants when needed would impede progress in the concerned area and could also have an adverse impact on overall project delivery and costs. **In light of the serious risks of cost escalation and delays in the delivery of the project, the Advisory Committee recommends that the Secretary-General be requested to address this issue as a matter of urgency, taking into account all options for using expedited procedures for the recruitment of such specialists. He should be requested to report on this matter in the context of his next progress report.**

E. Change management

36. In paragraphs 21 to 27 of his report, the Secretary-General provides an overview of the change management activities undertaken during the reporting period, which included: efforts to increase staff awareness about the project by organizing information sessions and encouraging staff to join Umoja NET, the project portal; the organization of senior-level meetings and working group sessions on topics such as fixed assets, inventory management and real estate management to increase understanding of the interdependencies between IPSAS and Umoja; the development of a global learning plan to support end-users, blending traditional instructor-led classroom learning and e-learning approaches; and an update on the review and acceptance of the new business processes. The Committee notes that since the last progress report, 229 of the future "to-be" processes were released for acceptance by the business owners, of which 143, or some 50 per cent, have been accepted.

37. Upon enquiry, the Advisory Committee was informed that a comprehensive training plan was currently under development. It was envisaged that end-user training would be conducted by cluster and business area and would begin six weeks before deployment. An estimated 26 per cent of the 40,890 United Nations staff members, representing approximately 10,429 end-users, would need to be trained. The Committee requested clarification as to the requirement of $4,592,380 proposed in paragraph 80 (d) of the report to cover travel costs of Umoja trainers to deliver a

comprehensive training to end-users in 2012-2013. It was provided with a breakdown of costs, which is attached as annex III to the present report.

38. As indicated in paragraph 13 above, the Organization is undertaking the simultaneous implementation of multiple major initiatives, including Umoja and IPSAS, all of which entail significant change in working methods and business processes. **The Advisory Committee emphasizes that close attention should be paid to coordinating change management activities related to the implementation of Umoja at each location so as to ensure a smooth deployment of systems, limit the burden on end-users and avoid disrupting operational activities.** In this regard, the Committee recalls that in its report on progress in the implementation of IPSAS, the Board of Auditors recommended that the Secretariat assess the feasibility of combining the business change activities for Umoja and IPSAS (A/66/151, para. 52). **The Committee shares the Board's view that some of the business change activities for Umoja and IPSAS could potentially be combined to bring benefits in terms of costs (for communications, training, staff time) and effectiveness and furthermore that change management messages would be more powerfully delivered as a joint message and would more effectively use senior management time. The Advisory Committee recommends that the Secretary-General be requested to provide information in his next progress report on the feasibility of combining any of the business change activities for Umoja and IPSAS and for achieving cost savings and efficiency gains.**

F. Existing systems, interfaces, customizations, extensions and technical activities

39. The Secretary-General provides an update on existing systems, interfaces, customizations, extensions and general technical activities in paragraphs 28 to 35 of his report. He indicates that the process of analysis and inventory of the systems that could be replaced by Umoja continues in close coordination with the Office of Information and Communications Technology. As indicated, approximately 700 systems will be replaced, while up to 300 of the remaining systems may require a technical interface to Umoja. The Secretary-General provides some details on the interfaces to be established between Umoja and major systems such as Inspira (talent management system), Galileo (inventory management in peacekeeping missions) and Documentum (document/records management system). He indicates that many of the remaining systems could be interfaced to Umoja through a small number of common, technical interfaces. The Secretary-General also asserts that no essential customization of the core software is required. Furthermore, two anticipated major extensions referred to in the previous progress report will not be required, namely, a parallel ledger to cope with the United Nations dual budgetary cycles and a solution for United Nations requirements in material tracking (see A/66/381, para. 32).

40. In his second progress report, the Secretary-General had indicated that a comprehensive cataloguing of existing applications was being carried out in cooperation with the Office of Information and Communications Technology and the Information and Communications Technology Division of the Department of Field Support (A/65/389, footnote 18). The Advisory Committee, in its related report had requested the Secretary-General to pursue his analysis and to provide a

comprehensive inventory of all the systems providing core functions for the management of human, financial and physical resources, which would also provide information on: (a) the systems to be replaced by Umoja, which could be decommissioned; (b) the systems to be maintained, which would be interfaced to Umoja; and (c) the systems to be maintained for which no interface was required (see A/65/576). **The Committee has consistently emphasized, since the inception of the project, the importance of making such an inventory available, which in its view is essential for decision-making and planning of the enterprise resource planning project, including for the estimation of costs relating to the development of interfaces and cleansing and migration of data (see paras. 53 and 54 below), as well as for estimating the related costs and resources released as a result of the decommissioning of the systems to be replaced by Umoja. The Committee considers that there has not been much progress made in this area since its consideration of the previous report of the Secretary-General. It continues to stress the importance of making progress in this regard and reiterates its previous request (see A/65/576, paras. 31 and 32).**

G. Collaboration with other United Nations entities

41. In paragraphs 54 to 57 of his report, the Secretary-General provides information on collaboration between the Umoja team and the World Food Programme (WFP). The Advisory Committee notes that in the first quarter of 2011 a "fit-gap analysis" was conducted comparing the WFP enterprise resource planning solution, WINGS II,[1] to the requirements of the United Nations, with a view to determining whether any elements of WINGS II could be incorporated into Umoja in order to accelerate progress. The Secretary-General indicates that this exercise demonstrated that the United Nations could benefit from WINGS II in the areas of finance and human resource management and by replicating WFP documentation and training materials. The Umoja team also benefited from the lessons learned by WFP, as an early implementer of an enterprise resource planning system, in developing the approach for phasing the initial deployment of the system to meet IPSAS requirements. The Committee also notes from paragraph 17 of the report that the Umoja team worked with representatives of WFP and relevant United Nations departments to analyse the rules, regulations and policies that would need updating to support the new business processes. The Committee notes that the Umoja team will continue to collaborate with WFP in the future and will examine WINGS II with a view to identifying further areas for accelerating progress.

42. The Secretary-General indicates in paragraph 52 of his report that the Umoja project team has initiated a study of approximately 25 United Nations organizations that have implemented enterprise resource planning systems to identify common solutions, procedures and standards across United Nations organizations. It is expected that the results of study will provide the Umoja team with information on best practices for the build and deploy phases, with a view to lowering the costs of Umoja. Upon enquiry the Advisory Committee was provided with some information on the initial findings of the study, which is attached as annex IV to the present report.

[1] WFP Information Network and Global System.

43. The Advisory Committee welcomes the collaboration between the Umoja team and its counterpart at WFP. It encourages the Secretary-General to pursue such cooperation and collaboration and to draw lessons from the experience of WFP. The Committee also notes the Secretary-General's decision to initiate a United Nations system-wide study on enterprise resource planning solutions. It looks forward to receiving an update on collaboration activities and further information on the findings of the system-wide study in the next progress report. The Committee considers that the study should also examine the feasibility of convergence towards the adoption of common enterprise resource planning solutions among the entities of the United Nations system in the long term. It remains convinced that such convergence will be necessary to manage costs and maintain sustainable enterprise resource planning solutions in the future.

H. Benefits realization

44. An update on the expected qualitative and quantitative benefits is provided in paragraphs 48 to 50 of the report of the Secretary-General. Qualitative benefits include increased operational effectiveness and timeliness, improved accountability, adoption of international best practices and standards, enhanced transparency, higher client satisfaction and better internal controls across the broad range of financial, procurement and staffing processes, as well as improvement in the availability and quality of information, reduction in manual effort, and building of staff skills. The Secretary-General states that the overall quantitative benefits related to Umoja that were identified in the first and second progress reports remain valid. Such benefits are estimated in the range of $139 million to $220 million. It is also indicated that an analysis of the impact of the revised implementation approach on the realization of benefits is under way.

45. Upon enquiry, the Advisory Committee was provided with updated information on the quantitative benefits provided in the first progress report of the Secretary-General (A/64/380, annex I) showing a high and a low range of expected cost savings by function and business process. The Committee was informed that the benefits were examined for feasibility and data accuracy and were categorized under the two phases of the revised implementation approach, Umoja Foundation and Umoja Extension.

46. The Advisory Committee recalls that the analysis of quantitative benefits provided in the first progress report had included details on productivity and efficiency gains underlying the cost savings. For example, productivity gains were translated in terms of a high and a low range of savings in staff time, which were consolidated as full-time equivalents and converted to financial values using the average cost of the full-time equivalents performing those tasks. Estimates for savings resulting from efficiency gains such as the decommissioning of systems to be replaced by the enterprise resource planning system were established on the basis of overall support costs and industry standards. In his first progress report, the Secretary-General indicated that the estimates of quantitative benefits, while calculated on thorough analysis using a structured methodology, were based on a number of assumptions and existing data that was not always complete or fully reliable, owing to the limitations of current information systems. The expectation

was that the assumptions would continue to be validated and refined as the detailed design phase and reengineering of business processes progressed.

47. **The Advisory Committee is of the view that the analysis of quantitative benefits provided in the first progress report facilitated its consideration of the report of the Secretary-General on the implementation of the enterprise resource planning system. It recommends that the Secretary-General be requested to continue to include in future progress reports updated information similar to that presented in the table contained in annex I to document A/64/380, including details on productivity gains and savings in staff time, with a view to providing greater transparency in measuring the expected quantitative benefits.**

I. Status of expenditures and other costs related the implementation of the enterprise resource planning

48. By its resolution 63/262, the General Assembly authorized the Secretary-General to establish a multi-year special account to record income and expenditures for the enterprise resource planning project. Subsequently, in its resolution 64/243, the General Assembly endorsed the proposal of the Secretary-General to deploy the enterprise resource planning project through the "pilot first" option. The resource requirements to implement the pilot first option through full deployment were estimated at $315,792,300.

49. In paragraphs 66 to 75 of his report, the Secretary-General provides details on the status of resources approved for and utilized by the project during the bienniums 2008-2009 and 2010-2011. Table 3 of the report provides a summary of the amounts approved and expenditures by biennium. The Advisory Committee notes that a total amount of $195,348,200 has been approved by the General Assembly thus far, comprising $20,000,000 in 2008-2009 and $175,348,200 in 2010-2011. Actual expenditures amounted to $17,699,700 in 2008-2009 and are projected at $103,635,800 during the current biennium. Total expenditures since the project was approved by the General Assembly in its resolution 63/262 are estimated at $121,335,500, reflecting an underexpenditure of $74,012,700 as compared to the amount approved.

50. As indicated in the preceding paragraphs, the Secretary-General states that the overall level of resources required for the implementation of Umoja in two phases remains unchanged at $315,792,300. Table 5 of the report shows the estimated implementation costs of Umoja Foundation (phase 1) and Umoja Extension (phase 2) by year, from 2012 to 2015, as well as the total projected expenditures for the 2008-2011 period.

51. The Advisory Committee sought additional information on financial implications of the delay and the revised implementation approach and clarification as to how Umoja would be delivered within the approved budget of $315,792,300. It was informed that the two-year extension of the implementation period would entail additional overhead costs during that period to cover staff salaries and entitlements and general operating expenses for rent, communications, office automation equipment, supplies and materials. However, every effort would be made to minimize these costs by reducing the size of the team gradually over time as an increasing number of individual components of the enterprise resource planning

system were completed and deployed. The Committee was further informed that the requirements for the deployment of the complete system within the approved budget had been projected until the end of the biennium 2014-2015.

52. The Advisory Committee was informed that it had been determined that the project costs could be contained within the approved budget, subject to the assumptions that: the 90 project posts and 66 subject matter expert positions would be filled by April 2012; the required subject matter experts would be released by their respective departments/offices and made available to the project when required; the systems integrator for the build phase would have an onshore and offshore ratio of 30:70 (this assumption impacts multiple objects of expenditure, including requirements for contractual services and general operating expenses to cover requirements for office facilities); United Nations staff would acquire greater enterprise resource planning technical expertise during the first phase and be able to assume a greater role in the second phase of implementation, thereby reducing the requirement for costly specialists; the user community would commit to participating in onsite preparatory activities such as data cleansing, user testing, and user training (see para. 53 below); and maintenance costs would be borne by the user community from 2014 onwards.

53. Upon enquiry as to the expected involvement of the user community referred to in paragraph 52 above, the Advisory Committee was informed that the project team was conducting an analysis of the total cost of ownership[2] of the Umoja project. The study would include a complete costing of items funded from the Umoja project budget, as well as costs that are to be borne by United Nations departments/offices. The representatives of the Secretary-General stated that such a study reflected a best practice for large enterprise resource planning and information and communications technology projects in which the majority of development costs are borne by the central project, but costs for related activities, such as the cleansing of data to be migrated to the enterprise resource planning system, are supported by the user departments that own the data and must perform those activities as part of their operational responsibilities. The Committee was also informed that the study was expected to be completed by the end of the first quarter of 2012. Further details on the composition of the costs to be supported by user departments were provided to the Committee (see annex V). In this connection, the Committee recalls that in its previous report it had also requested the Secretary-General to provide estimates of future operating costs (see A/64/7/Add.9, para. 87 and A/65/576, para. 37).

54. The Advisory Committee was further informed that the Umoja budget covered costs associated with data conversions and interfaces of applications categorized as "priority systems". These included, inter alia, data conversion of all instances of IMIS, procurement systems and the enterprise systems of the Department of Field Support (inter alia, SUN, Mercury, Progen, Nucleus and the Field Personnel Management System), as well as the interfaces to be developed between Umoja and other major systems, such as Inspira, the iNeed customer relationship management system and the corporate telephone billing systems. The Committee was further

[2] Includes all direct and indirect costs associated with the acquisition and operation of a computer system over its entire life cycle, including capital investment, hardware and software, plus indirect costs of installation, training and technical support, as well as future costs for operations and upgrading of the system.

informed that the costs associated with archiving and decommissioning priority legacy systems were not included under the Umoja budget, but would be assumed by the owners of those systems. The representatives of the Secretary-General indicated that many of the other systems to be replaced were relatively small and would not require data conversions. Upon enquiry the Committee was also informed that the deferral of the realization of benefits until after the deployment and stabilization of Umoja Foundation and Umoja Extension represented an opportunity cost for the Organization.

55. **The Advisory Committee notes the information provided on the costs related to the implementation of the enterprise resource planning system. It considers that there is an urgent need to: identify precisely and comprehensively all the tasks required for the implementation of the enterprise resource planning system; determine the resources required for the accomplishment of those tasks; establish clearly the costs to be covered under the Umoja budget and those to be absorbed by the concerned departments; and assign responsibility for the completion of the tasks in accordance with the schedule of implementation of Umoja (see also para. 40 above). The Committee recommends that the Secretary-General be requested to complete the analysis of the total cost of ownership of Umoja as a matter of priority and to report thereon to the General Assembly at the second part of its resumed sixty-sixth session.**

J. Resource requirements for 2012-2013

56. The estimated resource requirements for the Umoja project for the biennium 2012-2013 are set out in paragraphs 77 to 80 of the report. The total cost for the biennium 2012-2013 is estimated at $117,373,500 comprising:

(a) $30,864,100 under posts, to provide for salary and common staff costs for the continuation of 90 posts for the Umoja project team (1 D-2, 8 D-1, 21 P-5, 37 P-4, 9 P-3, 1 P-2, 1 General Service (Principal level) and 12 General Service (Other level);

(b) $17,792,700 under other staff costs, to cover requirements for general temporary assistance to provide for 66 subject matter experts;

(c) $3,484,800 under consultants and experts to provide for fees ($3,196,800) and travel costs ($288,000) based on an estimate of 288 work months of specialized expertise;

(d) $8,651,900 under travel of staff, to cover requirements for the travel of Umoja staff to complete the build and deployment of Umoja Foundation in the pilot location and the subsequent clusters, including a provision of $4,592,380 to cover travel costs of the Umoja trainers who will deliver a comprehensive training to end-users in the biennium 2012-2013;

(e) $34,625,800 under contractual services, largely to cover the requirements for system integrator services ($30,140,600) commencing in early 2012 to build, test and deploy Umoja Foundation, as well as for legal and strategic consulting, training of Umoja staff, including subject matter experts, on enterprise resource planning software, training of trainers and user training for the deployment of Umoja Foundation;

(f) $5,164,700 under general operating expenses, to provide for rental of premises, maintenance and support of the local area network technical infrastructure and central servers for support of Umoja and rental and maintenance of office automation equipment;

(g) $290,400 under supplies and materials, to provide for stationery and office supplies, including $104,600 for Umoja training materials;

(h) $16,499,100 under furniture and equipment, for the acquisition of software licences, furniture and equipment.

57. Explanations of the variances between the proposals for 2012-2013 as compared to 2010-2011 under individual objects of expenditure are provided in paragraph 78 of the report. The Committee notes that the differences are mainly due to the revised phased implementation approach.

K. Conclusion and recommendation

58. The proposals for action to be taken by the General Assembly are set out in paragraph 85 of the Secretary-General's report. **The Advisory Committee recommends that the General Assembly:**

(a) **Take note of the Secretary-General's third progress report on the implementation of the Umoja project taking into account the views and recommendations in the present report, in particular the recommendation in paragraph 19 above that the Secretary-General provide a permanent governance structure for the Umoja project no later than at the first part of the resumed sixty-sixth session of the General Assembly;**

(b) **Authorize the Secretary-General to enter into commitments in a total amount not to exceed $17,806,300 (net), as presented under section 29A, Office of the Under-Secretary-General for Management, of the proposed programme budget for the biennium 2012-2013, representing the regular budget share for the Umoja project (A/66/6 (Sect. 29A) and Corr.1);**

(c) **Note that the requirements for the biennium 2014-2015 in the amount of $13,269,700 (net) will be included in the proposed programme budget under section 29A, Office of the Under-Secretary-General for Management, representing the regular budget share for the Umoja project;**

(d) **Note that the future remaining requirements in the estimated amount of $56,006,500 (net) will be included in the subsequent requirements for the support account for peacekeeping operations for the financial periods beginning from 1 July 2012.**

III. Enterprise information and communications technology initiatives for the United Nations Secretariat

59. The Advisory Committee initially considered the report of the Secretary-General on enterprise information and communications technology (ICT) initiatives (A/66/94) in conjunction with his proposals under section 30, Office of Information and Communications Technology, of the proposed programme budget for the

biennium 2012-2013. Just as it was finalizing its report, the Committee was informed that the Secretariat was anticipating delays in the implementation of the enterprise resource planning project and that the Secretary-General would propose measures to mitigate delays in the context of his next progress report, including a revised approach for delivering the project in phases, focusing initially on the functions needed to support the adoption of the International Public Sector Accounting Standards (IPSAS). The Advisory Committee decided to defer the issuance of its report and to revisit the Secretary-General's proposals for enterprise ICT initiatives until further information on the revised approach for the implementation of Umoja became available. In making its observations and recommendations below, the Committee bore in mind the challenges facing the Organization as it concurrently undertakes multiple major, high-risk and costly initiatives, which must be implemented within tight time frames.

60. Background to the report of the Secretary-General is given in paragraphs 1 to 3 of the report. As indicated, by its resolution 63/262, the General Assembly endorsed the overall approach relating to the ICT strategy for the Secretariat and decided to establish, effective 1 January 2009, the Office of Information and Communications Technology, as a central organizational unit to provide strong leadership for the development and implementation of Organization-wide ICT programmes that effectively support the Secretariat's mission and its global operations. As one of the first steps in the implementation of the ICT strategy, the Office of Information and Communications Technology conducted a structural review of all ICT units Secretariat-wide and established a comprehensive inventory of ICT capacities across the Organization (A/65/491, paras. 82-103). The key findings of the review were that the ICT environment and processes of the Organization remained highly decentralized, fragmented, duplicatory and non-standardized, thereby driving up the costs of operations and preventing the Organization from realizing economies of scale. Furthermore, a large proportion of resources were directed towards infrastructure and routine operational tasks, and ICT support for programmatic, substantive, administrative and managerial activities was lacking. The review highlighted that annual ICT expenditures of the United Nations were estimated at $774 million, including from regular budget, peacekeeping and support account and extrabudgetary funding sources. In the same report, the Secretary-General also highlighted the difficulties encountered in determining a consolidated budget figure: because of the lack of consistent and comparable data across the Organization, the overall estimate was based on a time-consuming manual compilation of information from a variety of documents, making it difficult to track the costs of ICT activities on a regular basis.

61. On the basis of the findings of the review, in his progress report on the implementation of the ICT strategy (A/65/491) the Secretary-General proposed four structural review projects aimed at streamlining and standardizing the ICT environments across the Secretariat: (a) globalize service desks; (b) streamline data centres; (c) rationalize ICT organization; and (d) strengthen the Office of Information and Communications Technology. The overall resources proposed for the four projects over a five-year implementation period from 2011 to 2015 amounted to $140.7 million ($8.5 million for the biennium 2010-2011, $50.7 million for 2012-2013 and $81.4 million for 2014-2015) and involved the establishment of a total of 51 posts under the regular budget, of which 23 were proposed to be established in 2011 and a further 28 in the biennium 2012-2013. The structural

review projects were proposed to be funded on the basis of the cost-sharing arrangement approved for the enterprise resource planning project, Umoja.[3]

62. In its resolution 65/259 on the above proposals, the General Assembly endorsed the related report of the Advisory Committee (A/65/575). It authorized the Secretary-General to proceed with structural review project 3, Rationalize ICT organization, and decided that the $1.5 million required for the project for 2011 would be provided from within the resources approved for the biennium 2010-2011. The Assembly also decided to provide general temporary assistance equivalent to seven P-4 positions for structural review project 4, Strengthen the Office of Information and Communications Technology, of which five were to be funded from within existing resources for 2010-2011. The Assembly did not support structural review project 1, Globalize service desks, or structural review project 2, Streamline data centres. It requested the Secretary-General to review the proposals on the implementation of the ICT strategy contained in his report (A/65/491), and to submit new and/or revised proposals in the context of the proposed programme budget for the biennium 2012-2013. The current report of the Secretary-General (A/66/94) is submitted in response to that request. The report also responds to previous requests by the General Assembly in its resolutions 63/262, 63/269 and 64/243 concerning the implementation of the solutions for enterprise content management and customer relationship management and the development of a unified disaster recovery and business continuity plan.

63. In his report (A/66/94), the Secretary-General presents four revised cross-cutting, Organization-wide initiatives as follows:

(a) Improve enterprise ICT management, integrating earlier proposals for structural review project 3, Rationalize the ICT organization, and structural review project 4, Strengthen the Office of Information and Communications Technology;

(b) Leverage knowledge through ICT, formerly referred to as enterprise content management, which responds to the General Assembly's request for a fully justified proposal for the implementation of enterprise content management in the context of the proposed programme budget for the biennium 2012-2013 (resolution 64/243, para. 126);

(c) Enhance ICT service delivery, revising the Secretary-General's previous proposal for structural review project 1, Globalize service desks (see A/65/491) and integrating ongoing implementation of the customer relationship management system. This initiative also responds to the General Assembly's request for a fully justified proposal for the implementation of customer relationship management in the context of the proposed programme budget for the biennium 2012-2013 (ibid.);

(d) Create a resilient ICT infrastructure, presenting a revised proposal for structural review project 2, Streamline data centres (see A/65/491), which incorporates, in response to General Assembly resolutions 63/262, 63/269 and 65/259, the requirements for a unified disaster recovery and business continuity plan, including a permanent solution for Headquarters.

64. Figure I of the report illustrates the linkages between previous General Assembly resolutions and the four enterprise ICT initiatives being proposed. For

[3] Comprising 15 per cent from the regular budget, 62 per cent from the support account for peacekeeping operations and 23 per cent from the special accounts for programme support costs.

each initiative, the report provides details on the background of the proposal; the objectives to be achieved; the implementation approach, including key activities, phases and a timetable; progress made in related areas since the establishment of the Office of Information and Communications Technology on 1 January 2009; resource requirements proposed for implementation of activities during the biennium 2012-2013; and preliminary estimates of requirements for 2014-2015. The Secretary-General also provides information on the qualitative and quantitative benefits expected from the implementation of each initiative. Annex IV to the report contains a quantitative benefit analysis for each initiative.

65. The Secretary-General states that, taken together, these four initiatives would address critical institutional ICT needs and improve the effective and efficient delivery of the Secretariat's ICT programmes. They would also allow the Organization to move from a decentralized to a federated model, in line with the ICT strategy adopted by the General Assembly. Under that model, the Office of Information and Communications Technology is responsible for setting Organization-wide strategy, standards and policies, providing enterprise systems and infrastructure, and planning and coordinating Secretariat-wide ICT activities, while decentralized, independent ICT units in departments/offices deal with local and operational issues and provide departmental systems and services as required, based on organizational standards. The Secretary-General further indicates that, should the initiatives not be implemented, or only partially implemented, it will be difficult to overcome the challenges arising from the continued fragmentation of ICT capacities and resources across the Organization, including the high cost of ICT operations.

66. The Secretary-General states that by addressing the fragmentation of the current ICT environment of the United Nations, the implementation of the four initiatives would create an optimal environment for the effective implementation and operation of ICT systems, including enterprise systems, in particular through the establishment of suitable ICT policies and organizational structures, technical architecture and standards, end-user technical services, communications and infrastructure.

67. The Secretary-General proposes that the four initiatives be carried out over a four-year period from 2012 to 2015 and that they be funded on the basis of the cost-sharing arrangement approved for Umoja (see para. 61 above). A summary of the total costs for the implementation of the four initiatives for the biennium 2012-2013 is provided in section III of the report of the Secretary-General (A/66/94, paras. 150 and 151). The overall resources proposed for 2012-2013 amount to $42,822,500, comprising $6,423,400 to be funded from the regular budget, $26,550,000 from the support account for peacekeeping operations over the 2011/12, 2012/13 and 2013/14 financial periods, and $9,949,100 in extrabudgetary resources from the special accounts for programme support costs. Estimated requirements for the biennium 2014-2015 and beyond range from $37 to $54 million.

68. The Secretary-General states that, in response to the General Assembly's request, the proposals presented in previous reports were reviewed and revised with the goal of presenting an integrated set of new proposals and achieving a similar impact at a significantly reduced cost by leveraging existing efforts and technological tools across the Organization. The Advisory Committee notes that the proposed initiatives were developed in consultation and collaboration with

departments and offices through the ICT governance mechanisms in place and that they are to be deployed through a joint effort of the Office of Information and Communications Technology and other organizational units (see A/66/94, para. 7).

69. The Advisory Committee was informed that the $42.8 million proposed for the four initiatives for the biennium 2012-2013 reflected a 33 per cent reduction as compared to combined resource requirements of $64 million for the previous proposals contained in documents A/65/491 and A/62/510/Rev.1. The Committee was provided with summary information on the differences and cost comparisons between the current and previous proposals, which are attached as annexes VI and VII below. An overview of the key activities undertaken in the area of each initiative and progress made since 2009 is provided in annex VIII below.

70. In its first report on the proposed programme budget for the biennium 2012-2013, the Advisory Committee noted that the regular budget share of the resources proposed for the four initiatives was not reflected under budgetary proposals for 2012-2013 (A/66/7, para. VIII.128). The proposals contained in document A/66/94 would therefore represent additional requirements under section 30, Office of Information and Communications Technology ($5,639,100) and section 29D, Office of Central Support Services ($784,300). Upon request, the Committee was provided with the following clarification as to how each initiative was related to section 30 of the proposed programme budget, including information on the subprogramme and the organizational unit responsible for its implementation:

Initiative	*Subprogramme*	*Organizational unit*
A. Improve enterprise ICT management	• Executive direction and management • 5, ICT strategic management and coordination • 6, ICT operations • Programme support	• Office of the Chief Information Technology Officer • Strategic Management Service • Infrastructure Management Service • Field Application Section • Executive Office
B. Leverage knowledge through ICT	• 6, ICT operations	• Knowledge Management Service
C. Enhance ICT service delivery	• 6, ICT operations	• Resource Management Service • Infrastructure Management Service
D. Create resilient ICT infrastructure	• 6, ICT operations	• Infrastructure Management Service

A. General observations and recommendations

71. The Advisory Committee recognizes the effort made to present a revised proposal for the implementation of the ICT strategy at a reduced cost. It notes the approach taken to integrate and combine, under each of the four enterprise ICT initiatives, the related structural review projects and ongoing activities of the Office, as well as proposals in response to outstanding requests of the General Assembly concerning enterprise content management, customer relationship management and disaster recovery and business continuity. The Committee considers that such an approach would avoid piecemeal implementation of the ICT strategy and also allow consolidation and streamlining of the reports on ICT matters submitted for consideration by the General Assembly. In the Committee's view fragmented reporting is unhelpful and confusing.

72. As to the substance of the proposals, which was extensively discussed in earlier reports, the Committee notes that the envisaged solutions are anchored in an analysis of the outcome of the structural review of ICT capacities across the Secretariat, which confirmed the fragmented state of the ICT environment and the need for greater coherence and coordination in the management of ICT activities (see A/65/491, paras. 93-103 and A/65/576, paras. 92-93). The Committee has, over the years, repeatedly stressed the need for common Secretariat-wide systems and platforms wherever possible, as well as central leadership for policy, strategic guidance and standard-setting in the area of information and communications technology, and broadly agrees with the approach proposed by the Secretary-General.

73. Under the Improve enterprise ICT management initiative, the Secretary-General outlines a strategy to address the question of ICT posts expected to be released and made available for redeployment through attrition, consolidation of ICT units at the departmental level, optimized distribution of Secretariat-wide ICT activities, or implementation of a global ICT staffing model (A/66/94, paras 20-27). He indicates that future proposals on any staff reduction will be prepared in close consultation with the relevant departments/offices and presented to the General Assembly for consideration, as part of the normal departmental budget submission process. He further states that any action approved by the Assembly will be implemented in close collaboration with the Office of Human Resources Management. **The Advisory Committee is of the view that staffing implications of technological change can be accommodated through careful planning of future human resources needs, in consultation with all relevant departments. It emphasizes that acceptance of the direction and objectives of the ICT strategy will be key to the success of this endeavour, and recommends that every effort be made to ensure close cooperation of departments and offices across the Secretariat with the Office of Information and Communications Technology. The Committee also emphasizes that the Office of Information and Communications Technology should work closely with the Office of Human Resources Management in the design, development and implementation of the ICT global staffing model, which should be incorporated as part of a Secretariat-wide workforce planning exercise.**

74. For each initiative, the Secretary-General sets out in some detail information on the qualitative and quantitative benefits that are expected from its implementation in terms of improved service delivery; transparency; distribution of ICT roles; utilization of ICT resources; coordination and coherence among ICT units, operations and processes; responsiveness to clients; support for substantive and knowledge management activities; and efficiency gains and cost savings to be realized through greater automation and reduced duplication. In annex IV to his report, the Secretary-General provides a quantitative benefit analysis for each initiative (except the Improve enterprise ICT management initiative), including, in monetary terms, the low and high range of estimated benefits for each expected improvement, along with information on the underlying assumptions and calculation methodology. The expected improvements cover a broad range of performance measures reflecting expected economies, efficiency gains or improved effectiveness, translated into time and cost savings or cost avoidance. The overall benefits expected to be realized on an annual basis are estimated at between $80.6 and $114.5 million.

75. **The Advisory Committee is of the view that, in some cases, the performance measures are lacking in specificity and that the estimated benefits are based on broad averages which do not appear to be very meaningful.** For example, under the Leverage knowledge through ICT initiative, the improvement "Enhanced information-sharing across departments and locations" is expected to yield between $3 and $3.7 million in cost savings per year. The explanatory footnote indicates that the amount is based on the assumption that enhanced information-sharing will allow some 8,000 people to save 10 minutes per week, and that 65 per cent of that time will be used productively. In this particular case, the Advisory Committee considers that differentiated targets by occupational group could be established, with more specific and measurable targets for productivity gains for each group. **The Committee recommends that, for the purpose of establishing benchmarks, the Secretary-General be requested to continue to develop and refine the performance measures and the methodology applied for estimating the quantitative benefits resulting from economies, efficiency gains and improved effectiveness, and to provide, where relevant and to the extent possible, industry benchmarks for comparative purposes.**

76. In annex III to his report, the Secretary-General sets out the conditions that need to be in place for benefits to be realized, highlighting the indicative nature of the estimates and lack of reliable data to serve as the basis for the calculation. He further states that the potential savings would be available, at the earliest, after new processes and structures have been fully deployed and stabilized for at least one year. **In the Advisory Committee's view, given the conditions set out by the Secretary-General, the probability of effective realization of the expected quantified benefits in the future appears to be hypothetical at this stage. In this regard, the Committee points out that, even under the best of circumstances, projects with long timescales present considerable risks as to the effective realization of the targets planned at inception, owing to the changes occurring over time to project objectives, implementation activities and costs, as well as turnover of project personnel. The Committee is of the view that the future credibility of the ICT strategy depends on demonstrating the realization of actual benefits in future progress reports. It expects that the actual quantified benefits realized will be reported in the annual reports of the Secretary-General**

on progress in the implementation of the ICT strategy. The Committee considers that the findings of the structural review (see para. 61 above) constitute a baseline of the status of ICT from which progress should be measured.

77. In making its observations and recommendations on the individual initiatives in section III.C below, the Advisory Committee focused its attention on the differences between earlier and current proposals, the proposed resource requirements and activities accomplished since the issuance of the previous report (A/65/491). In that report, the Secretary-General provided an in-depth analysis of the outcome of the structural review of ICT capacities across the Secretariat, with an Organization-wide perspective on the ICT resources and state of the ICT environment of the United Nations. He also provided detailed information on the rationale, objectives, benefits and implementation plans of the four projects proposed to address the findings of the structural review. In its related report, the Advisory Committee commented extensively on those proposals. **The Committee points out that, while the current report of the Secretary-General revises and repackages the structural review projects as enterprise ICT initiatives, broadens their scope in some areas and incorporates additional requirements such as enterprise content management, the thrust of the main proposals remains unchanged. The weaknesses that the proposals are intended to address likewise remain unchanged. The Committee's related observations and recommendations in its report A/65/576 also remain valid.**

78. In paragraphs 41 to 59 of his previous report on the status of implementation of the ICT strategy (A/65/491), the Secretary-General provided an update on the objectives and key activities undertaken and planned with respect to the ICT management framework and each of the three ICT strategic programmes: knowledge management, resource management and infrastructure management. In its related report, the Advisory Committee expressed its appreciation for the presentation of a comprehensive overview of the ICT activities undertaken Secretariat-wide, including the update on the implementation status of key enterprise systems (see A/65/576, para. 58). **The Committee recommends that the Secretary-General be requested to continue to provide a similarly comprehensive update and to further expand on the status of the major enterprise systems under development in the next annual progress report on the implementation of the ICT strategy.**

79. In its previous report, the Advisory Committee recommended that the Secretary-General review the prioritization and phasing of the structural review projects and present alternative implementation approaches (ibid., para. 99). **While noting the attention that has been given to the Committee's comments and recommendations in the formulation and presentation of the enterprise ICT initiatives, as well as the efforts made to lower overall costs, the Committee points out that the proposals for the enterprise ICT initiatives still represent a significant outlay. Moreover, the Committee is not convinced that the whole range of activities associated with the four enterprise ICT initiatives needs to be implemented at the same time. In the light of the difficulties encountered in the management of the Umoja project, the Committee is equally unconvinced about the Secretariat's capacity to undertake and successfully execute a large number of complex, management reform initiatives concurrently, in particular initiatives involving significant institutional change (see para. 59 above).**

Furthermore, given the tight timetable for the adoption of IPSAS by 2014 (see A/66/379), the Committee believes that the Secretariat should, to the extent possible, avoid launching major new initiatives and proceed with the implementation of ongoing projects in a more gradual manner that allows proper analysis and absorption of the lessons learned from recent experience. Accordingly, in its discussion on individual initiatives in section III.C below, the Committee recommends that the Secretary-General further reprioritize and reduce the scope of the activities envisaged for the biennium 2012-2013 under each of the four enterprise ICT initiatives and identify the features that could be postponed without cutting short or negatively impacting ongoing activities or compromising return on investments already made.

B. Overall resource requirements

80. The tables below provide a summary of the resource requirements for the four initiatives by object of expenditure and funding source for the biennium 2012-2013 and the low and high range estimates for the biennium 2014-2015 and beyond. The Advisory Committee was informed that, except for the 14 regular budget posts, which are proposed to be established under the first initiative and represent ongoing expenditures, funding for all other activities envisaged under the four initiatives represented a one-time investment, and that no further costs would be required upon completion of the implementation. The Committee notes that a significant proportion of the resource requirements is proposed under contractual services. To facilitate consideration of the proposed requirements, a breakdown by type of expenditure for software licences and tools, personnel costs, hardware and infrastructure, and change management activities is provided in table 1 below.

Table 1
Proposed resource requirements by object of expenditure for the biennium 2012-2013
(Thousands of United States dollars)

Object of expenditure	*Improve enterprise ICT management*	*Leverage knowledge through ICT*	*Enhance ICT service delivery*	*Create a resilient ICT infrastructure*
Posts	2 883.6	—	—	—
Other staff costs	1 346.6	—	—	511.2
Travel of staff	150	19.6	16.5	—
Contractual services	498	10 057.2	11 103.5	4 369.5
Software licences and tools	—	3 013	3 947.3	2 230.2
Personnel	—	4 755.8	7 156.2	2 139.3
Hardware and infrastructure	—	572.6	—	—
Change management	—	1 715.8	—	—
General operating expenses	2 973.7	1 059.6	443.3	—
Supplies and materials	—	—	1 166.1	—
Furniture and equipment	502	17.6	27.4	4 947.2
Total	**8 353.9**	**11 488.8**	**13 151.9**	**9 827.9**

Table 2
Proposed resource requirements by funding source for the biennium 2012-2013
(Thousands of United States dollars)

Funding source	*Improve enterprise ICT management*	*Leverage knowledge through ICT*	*Enhance ICT service delivery*	*Create a resilient ICT infrastructure*
Regular budget[a]	1 253.1	1 723.3	1 972.8	1 474.2
Peacekeeping support account	5 179.4	7 123.1	8 154.2	6 093.3
Extrabudgetary	1 921.4	2 642.4	3 024.9	2 260.4
Total	**8 353.9**	**11 488.8**	**13 151.9**	**9 827.9**

[a] The delayed impact in future bienniums of the 14 regular budget posts proposed to be established is estimated at $2,325,600.

Table 3
Estimated resource requirements for the biennium 2014-2015 and beyond
(Thousands of United States dollars)

Estimates	*Improve enterprise ICT management*	*Leverage knowledge through ICT*	*Enhance ICT service delivery*	*Create a resilient ICT infrastructure*
Posts (delayed impact)	2 325.6	—	—	—
Low range requirements	1 000	8 000	14 900	11 600
High range requirements	2 000	12 000	22 300	17 400

C. Observations and recommendations on individual initiatives

1. Improve enterprise ICT management

81. The Secretary-General's proposals for the Improve enterprise ICT management initiative, are presented in paragraphs 8 to 53 of his report. The initiative combines and builds on two previous interrelated proposals, which were presented in document A/65/491: structural review project 3, Rationalize the ICT organization, and structural review project 4, Strengthen the Office of Information and Communications Technology. As indicated in paragraph 62 above, by its resolution 65/259, the General Assembly authorized the Secretary-General to proceed with structural review project 3, Rationalize ICT organization and decided that the $1.5 million required for the project for 2011 would be provided from within the resources approved for the biennium 2010-2011. The Assembly also decided to provide general temporary assistance equivalent to seven P-4 positions for structural review project 4, Strengthen the Office of Information and Communications Technology, of which five were to be funded from within existing resources for 2010-2011. The Secretary-General indicates that resource requirements continue to be monitored in order to identify funding for the $1.5 million and 5 P-4 general temporary positions approved for the project from within existing resources. At the time of its consideration of the Secretary-General's current proposal in July 2011, the Advisory Committee was informed that funding for those resources had not yet been identified and that recruitment for two P-4 general temporary assistance positions was under way. The Committee was further informed that the resources for the two P-4 general temporary assistance positions were provided on a one-time

basis for 2011 and were not proposed to be continued in the budgetary proposals for section 30 for the biennium 2012-2013 (see A/66/7, para. VIII.134).

82. The Advisory Committee was informed that the objectives and implementation approach for the Rationalize ICT organization portion of the initiative remained largely unchanged as compared to the previous proposal in document A/65/491. However, the implementation schedule had been adapted to reflect the activities already completed, which included, inter alia: the definition of ICT functions, jobs and sourcing rules; the organizational review of OICT; and the design of criteria and processes for a departmental review of ICT units (see A/66/94, para. 38 and fig. II). The Committee was also informed that the Office had established a new ICT governance framework and a client services function, developed several ICT policies, increased its use of standards and reviewed Secretariat-wide ICT budget proposals.

83. In paragraph 16 of his report, the Secretary-General indicates that there are close to 2,000 applications, which will be reduced through sustained coordination of cross-cutting ICT functions and as a result of the implementation of the enterprise resource planning system, Umoja. In its previous report, the Committee recommended that the Umoja project team establish, in cooperation with the Office of Information and Communications Technology, an inventory of the applications that could be replaced by the enterprise resource planning system. It expressed the view that the activities related to the planning of decommissioning activities should be coordinated by the Office of Information and Communications Technology, in the context of the projects arising from the outcome of the structural review of ICT capacities (A/65/576, para. 32). **The Advisory Committee emphasizes the importance of reducing the fragmentation of applications and infrastructures and eliminating duplicate and redundant systems (see also paras. 39 and 40 above). A comprehensive inventory of Organization-wide applications and infrastructure that could be consolidated or replaced should be established. The Committee recommends that the Secretary-General be requested to pursue his analysis and to provide information on progress in this regard in the context of his next progress report.**

84. As regards the proposals for the strengthening of the Office of Information and Communications Technology, the Secretary-General indicates that an organizational review of the Office was conducted in 2010 as part of the Rationalize ICT organization structural review project (A/66/94, para. 31). According to the Secretary-General, the review determined that seven critical cross-cutting functions were understaffed and required strengthening to enable the Office to make progress in implementing the ICT strategy in the areas of: enterprise architecture and standards; security and risk management; strategic planning and policy development; ICT portfolio management, including ICT financial management; ICT performance management; business relationship management; and technology research (A/66/94, paras. 31-34). On the basis of the findings of the review, the Secretary-General is proposing to redeploy seven positions within the Office from operational to cross-cutting functions, as well as to establish 14 new posts (2 D-2, 2 P-5, 10 P-4) in the biennium 2012-2013, to further strengthen capacity in those cross-cutting areas. Annex II to the report of the Secretary-General provides an organizational chart of the proposed structure of OICT for the biennium 2012-2013, showing the proposed redeployments and new posts by division/service and subprogramme.

85. Figure II of the report shows the schedule of the key implementation activities to be undertaken in the context of the Improve enterprise ICT initiative, which are described in paragraph 44 of the report. The Secretary-General indicates that work will continue on implementing the global ICT staffing model and standardizing functional titles and job descriptions, in close consultation with the Office of Human Resources Management. All ICT units in the Secretariat will be reviewed, resulting in recommendations on structural changes to the units, their reporting arrangements within their respective departments and offices, and a clear division of labour among ICT service providers. As indicated in paragraph 20 of the report, the review of ICT units will lead to proposals for the consolidation of ICT units at the departmental level and Secretariat-wide optimized distribution of ICT activities, including a reduction in overall ICT staffing needs

86. The Advisory Committee notes that the recommendations will be presented to the General Assembly for consideration (see also para. 73 above) as part of the budgetary process, in the context of the proposed programme budget for 2014-2015 for departments/offices at Headquarters and at offices away from Headquarters, and as part of the peacekeeping budget proposals for the period 2013/14 as regards any recommendation concerning the Department of Field Support and an initial "wave" of field missions reviewed. The Secretary-General envisages implementation of any changes approved by the General Assembly starting in the second part of 2013 for the initial field missions and in 2014 for departments/offices at Headquarters and in offices away from Headquarters. He indicates that the strengthening of the cross-cutting ICT functions constitutes an ongoing effort, initiated in 2011, which is to be continued throughout the duration of the implementation of the ICT strategy.

87. Resource requirements estimated for the initiative amount to $8.4 million, comprising: (a) $2,883,600 in relation to the proposed establishment of 14 posts (2 D-2, 2 P-5, 10 P-4); (b) $1,346,600 for general temporary assistance equivalent to two posts at the P-5 level, two posts at the P-4 level and one post at the P-3 level for 12 months each in 2012, and one post at the P-4 level for an additional 6 months in 2013 to carry out activities related to the rationalization of ICT structures and development of the ICT global staffing model and strategic workforce planning framework; (c) $150,000 for travel of staff; (d) $498,000 for contractual services to cover requirements for change management for the estimated 5 to 10 per cent of ICT staff that will be redeployed towards different job functions; (e) $2,973,700 under general operating expenses to cover expenditures for rental of premises and other costs in connection with the establishment of the proposed posts and the continuation of general temporary assistance; and (f) $502,000 under furniture and equipment, also in relation to proposed posts and staffing. The delayed impact of the 14 proposed posts from the biennium 2014-2015 is currently estimated at $2,325,600 (see A/66/94, table 1 and paras. 45-53).

88. Details on the functions of the proposed posts are provided in paragraph 35 of the report of the Secretary-General. The Advisory Committee was informed that 7 of the 10 P-4 posts proposed corresponded to the 7 general temporary assistance positions previously approved by the General Assembly (see resolution 65/259 and para. 81 above), which were being proposed for conversion. The 14 posts proposed for establishment/conversion are as follows:

(a) Under executive direction and management:

(i) One D-2 post for a Director for global strategy management is proposed in the Office of the Chief Information Technology Officer. The incumbent would be responsible, in close consultation with the Chief Information Technology Officer, for ensuring coherence of Organization-wide ICT activities and operations across 70 ICT units, with respect to infrastructure and architecture, applications development, business process re-engineering, networks, outsourcing and ICT operations and support;

(ii) One P-4 Communications Officer is proposed to manage the ICT communications strategy for the Secretariat and coordinate its implementation, promote strategic programmes and initiatives and provide advice and expertise to ICT programme managers and other ICT staff on a range of communications issues, methods and approaches.

(b) Under subprogramme 5, ICT strategic management and coordination:

(i) One P-5 post is proposed for ICT security management in the Strategic Management Service. The incumbent would be responsible for planning, creating and implementing ICT security management and ensuring that activities of all the security functions across the Secretariat are coordinated efficiently. He/she would also ensure that information relating to ICT security is communicated among affected stakeholders, thereby minimizing the exposure of the Organization to ICT security risks and cyberattacks;

(ii) One P-4 Officer for strategic planning and policy development is proposed for conversion in the Strategic Management Service. The incumbent would be responsible for planning, developing and updating the ICT strategy and for monitoring and reporting on the implementation of the ICT strategy across ICT units. He/she would ensure alignment of local and enterprise ICT strategies and the consistent implementation of the ICT strategy across the 70 ICT units in the Secretariat;

(iii) One P-4 Officer for enterprise architecture is proposed for conversion in the Strategic Management Service. The incumbent would be responsible for providing overall direction, guidance and definition of an enterprise architecture for the analysis, design and delivery of ICT solutions that are appropriate for both substantive and technology areas;

(iv) One P-4 Officer for technology research is proposed for conversion in the Strategic Management Service. The incumbent would be responsible for coordinating Organization-wide technology research activities in cooperation with ICT units, tracking emerging technologies and providing guidance and strategic advice on their utilization in the Secretariat. He/she would also assist in the definition of the architecture and technology needs of the Organization based on new and emerging technologies;

(v) One P-4 Officer for ICT performance management is proposed for conversion in the Strategic Management Service. The incumbent would be responsible for establishing Organization-wide performance standards for ICT units and establishing appropriate internal and external reporting mechanisms;

(vi) One P-4 Officer for ICT portfolio management is proposed for conversion in the Strategic Management Service. The incumbent would be responsible for maintaining the inventory of ICT capacities established in the context of the structural review and creating appropriate processes and systems to ensure transparency of the ICT expenditures of the Organization and to support decision-making on ICT investments;

(vii) Two P-4 Officers for business relationship management are proposed for conversion in the Strategic Management Service. The incumbents would be responsible for establishing, managing and maintaining strategic relationships with customers across the Organization in order to ensure alignment of ICT solutions with the needs of the Organization. They would also be responsible for negotiating the consolidation of similar applications across substantive areas and reducing the number of redundant applications.

(c) Under subprogramme 6, ICT operations:

(i) One D-2 post for a Director is proposed in the Infrastructure Management Service. The incumbent would be responsible for providing direction and coordination of enterprise infrastructure development and operations, including global ICT disaster recovery, as well as for leading the United Nations system-wide infrastructure harmonization efforts. He/she would be responsible for driving the Organization-wide infrastructure architecture and standardization and ensuring increased availability and reliability of the global ICT infrastructure;

(ii) One P-5 post is proposed for the Chief of the Field Systems Service for enterprise applications development in the field. The incumbent would be responsible for leading the Field Systems Service, which has been operating without a Chief since its transfer to the Office of Information and Communications Technology from the Department of Field Support on 1 February 2009.

(d) Under programme support:

(i) One P-4 post is proposed for human resources management in the Executive Office;

(ii) One P-4 post is proposed for financial management in the Executive Office.

89. **Recognizing the need for direction and coordination of enterprise ICT infrastructure, the Advisory Committee recommends approval of the proposed post for a Director for the Infrastructure Management Service at the D-2 level. Pending completion of the Secretary-General's review of all ICT units in the Secretariat and the availability of further information on overall ICT staffing needs (see paras. 85 and 86 above), the Committee believes that it would be premature to establish new ICT posts for the Office of Information and Communications Technology. It recognizes, however, the need to temporarily augment the capacity of the Office of Information and Communications Technology to undertake the strategic, cross-cutting activities of its broadened, Organization-wide mandate, including the development of enterprise architecture and standards (see A/65/576, para. 100). Bearing in mind the General Assembly's decisions on the Secretary-General's earlier proposals (see**

para. 62 above), the Advisory Committee recommends continuation of the seven P-4 general temporary assistance positions approved by the General Assembly in its resolution 65/259. The Committee recommends against approval of the remaining proposals for the D-2 post for a Director for global strategy management, the P-5 post for ICT security management, the P-5 post for the Chief of the Field Systems Service for enterprise applications development in the field, the P-4 post for a Communications Officer in the Office of the Chief Information Technology Officer and the two P-4 posts under programme support.

2. Leverage knowledge through information and communications technology

90. The second initiative, Leverage knowledge through ICT, formerly referred to as enterprise content management, is designed to provide an integrated knowledge management programme comprising functions for collaboration, document/records management, web content management and enterprise search. The proposal also responds to paragraph 126 of resolution 64/243, in which the General Assembly requested the Secretary-General to submit a fully justified proposal for post and non-post resources concerning the implementation of enterprise content management in the context of the proposed programme budget for the biennium 2012-2013. The Advisory Committee recalls that enterprise content management was not covered under the previous proposals for four structural review projects contained in document A/65/491.

91. The Secretary-General's proposals for the Leverage knowledge through ICT initiative are set out in paragraphs 54 to 82 of his report (A/66/94). The key challenges to be addressed in implementing the initiative include the lack of Organization-wide standards and tools for effective web publishing and collaboration, as well as the absence of a centralized document repository and taxonomical classification to facilitate search and use of information stored in numerous repositories across the Organization (A/66/94, para. 57). The Secretary-General indicates that a knowledge management road map was developed in 2009 through collaboration between departments and offices, discussions within the Working Group on Knowledge Management and with the assistance of knowledge management experts. The road map showed that the prevalence of inconsistent knowledge management activities and inconsistent use of technological tools continued to impede the Organization's ability to carry out its programmes effectively, while needlessly increasing the cost of operations (A/66/94, para. 56).

92. The Secretary-General indicates that the objectives pursued under the Leverage knowledge through ICT initiative are to create enterprise-wide platforms; improve and enhance analysis and decision-making support capabilities; improve information management policies and processes; facilitate and enhance knowledge sharing and collaboration; improve the management of websites and their content; improve the organization, accessibility and usability of information; and retain institutional knowledge (ibid., para. 59).

93. The qualitative and quantitative benefits expected through the implementation of the initiative are set out in paragraphs 61 and 62 of the Secretary-General's report. The Secretary-General indicates that the amount of resources devoted to knowledge management activities, although currently unavailable with any degree of precision, is estimated to be very high, given the extensive fragmentation of the

content management processes, tools and resources of the Organization. After full implementation, it is estimated that the overall savings from this initiative will range between $23 million and $28 million on an annual recurring basis. Details of the expected improvements and resulting savings are provided in annex IV to the Secretary-General's report. **The Advisory Committee points out that its comments in paragraph 75 above, on the need for continued refinement of performance measures and the methodology for estimating savings and efficiency gains, apply equally to the benefits identified with respect to the Leverage knowledge through ICT initiative.**

94. The implementation plan for the Leverage knowledge through ICT initiative is outlined in paragraphs 63 to 76 of the Secretary-General's report, covering the approach, key implementation activities and schedule. The Advisory Committee notes that the following set of four core knowledge management capabilities will be implemented at each duty station:

(a) A collaboration component, to enable the Organization to build virtual partnerships, share knowledge, find experts and form communities of practice. The current tool in place, e-Room, will be supplemented by more modern tools allowing blogging, wikis and further options for United Nations personnel to connect and consult with one another;

(b) A documents records management component, to enable the Organization to create, use, share, retain and dispose of documents and other kinds of content, such as e-mail, in line with enterprise policies, standards and guidelines. The Secretary-General indicates that on the basis of the enterprise content management road map developed in 2009 (see para. 91 above), a standard documents/records management system was developed late in 2010, designed to provide a centralized, secure and scalable repository for all types of United Nations documents. Its main functionalities include: creating document management workflows; enabling document library services such as check-in, check-out and version control; managing retention and disposal rules and schedules; securing access to documents; and digitizing paper documents. The project is to be implemented in phases over two bienniums (2012-2013 and 2014-2015), supported by the Office of Information and Communications Technology. In addition, the Official Document System (ODS) will be migrated to the system to improve ODS functionality and reliability;

(c) A web content management component, to enable the Organization to improve its Internet presence by facilitating the configuration, deployment, customization and optimization of sites, site collections, pages, web parts and documents. The project will first create an "iSeek 2.0" for the Secretariat's Intranet, and development work will be piloted on selected Internet websites. The web content management system will subsequently be applied to high-impact United Nations websites, including www.un.org, and will eventually be based on a global platform, built in accordance with appropriate governance rules for policies, procedures, guidelines and standards and with support services that oversee, streamline and provide quality assurance for the creation of new websites;

(d) An enterprise search component will index a large volume of information and knowledge in various repositories, and enable the Organization to search and find relevant information in a more effective way. The Secretary-General indicates that, initially, the enterprise search system will be applied to existing document repositories, such as www.un.org, ODS and iSeek, and subsequently to other sources

of information in the documents/records management and collaboration environments. As new repositories are introduced, they will be included in the enterprise search system, ultimately resulting in a one-stop search portal for the entire Organization, Member States and other stakeholders.

95. The Secretary-General states that these components must be implemented together in order to improve the ability of the Organization to gather, analyse, synthesize and present information throughout the entire life cycle of institutional knowledge and make knowledge more accessible to all stakeholders, worldwide. He also highlights the requirement for the full support of departments/offices and the need to plan and coordinate implementation through well-organized governance mechanisms, in order to achieve success and ensure the adoption of improved knowledge management policies, processes and technology tools. The governance mechanisms in place to ensure such coordination include the ICT Executive Committee, the ICT Advisory Group, the Working Group on Knowledge Management and the managers of departments and offices throughout the Secretariat (ibid., paras. 63-65).

96. Figure IV of the Secretary-General's report shows the implementation schedule of the key activities to be accomplished in 2012-2013, including: establishing enterprise-wide knowledge management infrastructure and governance; initiating pilot projects on collaboration and documents/records management; initiating pilot projects on web content management; rolling out knowledge management activities for up to 10 departments, offices away from Headquarters and field missions; and establishing enterprise search capabilities. In 2014-2015, it is envisaged to roll out and support knowledge management to remaining departments, offices away from Headquarters and field missions, and to maintain service delivery (ibid., para. 76).

97. The total resources proposed for the biennium 2012-2013 for the implementation of the initiative amount to $11.5 million, comprising $1.7 million in regular budget resources, $7.1 million from the support account and $2.6 million from extrabudgetary funding sources. The Advisory Committee notes that the totality of the resources proposed represents a one-time cost that would no longer be required after full implementation of the initiative (see para. 80 above). It was informed that, in comparison, the previous proposals for enterprise content management put forward in document A/62/510/Rev.1 amounted to $14.9 million. The Secretary-General indicates that the requirements for his current proposal were reduced through the adoption of a phased approach starting with a pilot implementation, and also by building on knowledge management activities already accomplished within existing resources since the elaboration of the initial proposals. The Committee was also informed that progress had been made in the following areas: issuance of policies and standards by the Working Group on Knowledge Management; procurement and setting up of an enterprise content management platform; selective deployment of collaboration tools; piloting of a document and records management and information portal; and improvement of the search functions of ODS and other repositories.

98. The estimated requirements of $11.5 million proposed for the implementation of the initiative in 2012-2013 are broken down as follows: (a) $196,000 for travel of staff; (b) $10,057,200 for contractual services, comprising $3,013,000 for additional software licences and maintenance, $4,755,800 for contractual personnel, $572,600

for hardware and storage, and $1,715,800 for change management activities; (c) $1,059,600 under general operating expenses for common support costs related to the contractual personnel proposed; and (d) $176,000 under furniture and equipment, also in relation to the contractual personnel positions proposed. The Advisory Committee requested clarification on the requirement of $1,715,800 for change management and services related to the delivery of change management activities (ibid., para. 79 (d)). It was informed that change management activities were integrated as part of the ICT project management methodology to minimize the disruptions caused by the adoption of new applications, technologies and business processes, and that the inclusion of funding for such activities was considered a best practice when implementing large ICT projects entailing the adoption of new technologies and working methods.

99. **The Advisory Committee recognizes the existing weaknesses in the management of information and the need to provide the Organization with enhanced tools and processes to capture, retain and share knowledge, as well as to search for and retrieve information more effectively and efficiently. While noting the Secretary-General's comment on the need to implement the four components of the initiative together, the Committee is of the view that implementation of the whole range of activities planned for 2012-2013, including the roll-out of all four components to 10 departments, is overly optimistic. It believes that the Secretary-General should seek alternative solutions for implementing the four components of the initiative at lower cost, and identify activities or features that could be postponed without jeopardizing the overall implementation of the initiative. In view of the above, as well as its observations in paragraph 79 above, the Committee recommends that the Secretary-General be authorized to proceed with the implementation of the Leverage Knowledge through ICT initiative, but at reduced cost and scope.**

3. Enhance information and communications technology service delivery

100. The third initiative, enhance ICT service delivery, revises the Secretary-General's previous proposal for the globalization of service desks, Structural review project 1 (see A/65/491). The initiative will incorporate the ongoing implementation of the customer relationship management system, entitled iNeed, that service desks throughout the Secretariat can use to record and track requests from United Nations personnel. The initiative also integrates proposals in response to paragraph 126 of resolution 64/243, in which the General Assembly requested the Secretary-General to submit a fully justified proposal for post and non-post resources concerning the implementation of customer relationship management in the context of the proposed programme budget for the biennium 2012-2013.

101. In his previous report (A/65/491) the Secretary-General described at some length the findings of the structural review with respect to the management of service desks across the Secretariat, as well as the rationale, implementation activities and expected benefits of his proposals for the globalization of service desks. The Secretary-General's revised proposals for enhancing information and communications technology service delivery are set out in paragraphs 83 to 112 of his report (A/66/94). He states that a high degree of fragmentation exists in this area, with at least 131 ICT service desks worldwide. Moreover, the service desks do not have standard working methods in accordance with best practice, and use tools with limited functionality to support service desks and workstation operations. The

Secretary-General further indicates that, at present, it is difficult to assess the quantity and quality of the service delivery processes, which impedes the Organization's ability to assign resources efficiently and establish work units that can address the complexity and volume of services needed. The lack of standardization increases complexity and fragmentation, and also drives up the costs of user services.

102. The key objectives for the Enhance ICT service delivery initiative are enumerated in paragraph 89 of the report. The aim is to, inter alia, improve the quality, standards, availability and efficiency of ICT service delivery at all duty stations; implement an enterprise ICT global service catalogue; establish a minimal number of standardized workstation configurations based on the applications required by all users; and implement business intelligence software to enable performance monitoring. The Secretary-General proposes to consolidate the 131 ICT service desk functions into a minimum of three regional enterprise ICT service desks which would provide all Secretariat offices with support for common applications such as Umoja, e-mail and Inspira. Unique site-specific services would continue to be provided locally, with a significantly reduced number of ICT service desk staff. The three enterprise service desks would be established in different time zones (for example in the Americas, Europe, and the Middle East and Africa) and would be able to service all United Nations locations worldwide. At any given time of the day, at least one of the three service centres would be operational, allowing, in effect, provision of services 24 hours a day, 7 days a week to all locations.

103. The qualitative and quantitative benefits expected through the implementation of the initiative are described in paragraphs 91 and 92 of the report. The Secretary-General indicates that the implementation of the Enhance ICT service delivery initiative will provide qualitative benefits in terms of improved capability to resolve issues quickly and consistently, the provision of multilingual support on a 24-hours-a-day, 7-days-a-week basis, increased responsiveness to users and greater productivity. The Committee also notes that a common telephone extension number, such as 3333, will be provided for all locations and that a user self-service capability will allow United Nations personnel to resolve their problems without the intervention of service agents or other technical staff, thereby decreasing the workload of service desk agents. Overall, annual savings expected after full implementation are estimated at between $39.7 and $59.6 million, comprising savings resulting from the introduction of self-service functions ($6.6 to $9.9 million); the automation of ICT asset management ($10.3 to $15.4 million); the automation of service desks ($1.4 to $2 million); the introduction of workstation standards and a reduced set of workstation configurations ($7.5 to $11.3 million); automated workstation management ($7.4 to $11.2 million); and the migration of common service functions from local service desks to the regional desks ($6.5 to $9.8 million). The Committee's comments on the need for continued refinement of the performance measures and the methodology for estimating savings and efficiency gains (see para. 75 above) apply equally to the benefits related to the Enhance ICT service d. .very initiative. The Advisory Committee notes that the Organization currently spends approximately $135 million annually on ICT service desk operations, comprising $39.6 million for equipment and $95.4 million for labour costs to provide for approximately 835 full-time equivalent employees, comprising 618 staff and 217 contractors.

104. The Advisory Committee notes that, in addition to ICT service delivery, the regional service centres will also be capable of addressing service requests in other functional areas, such as facilities, human resources, procurement and financial services. The Secretary-General indicates that the Office of Information and Communications Technology, the Department of Field Support and other ICT units will work closely with departments and offices to identify other such administrative services.

105. The Secretary-General indicates that a key element of the revised strategy is to leverage investments in the existing enterprise customer relationship management (iNeed) and enterprise identity management systems to record all service calls and to validate the identity of users, thereby significantly reducing the overall implementation cost of the initiative (A/66/94, para. 93). In paragraph 102 of the report, the Secretary-General provides information on the progress to date since the introduction of the customer relationship management concept in 2008 (see A/62/510/Rev.1). The Advisory Committee notes that, in addition to the Office of Information and Communications Technology and the Department of Field Support, the iNeed system has been deployed in selected departments/offices at Headquarters and at offices away from Headquarters, as well as at the United Nations Logistics Base and in some field missions. Figure VI of the Secretary-General's report shows the implementation schedule for the various activities of the initiative.

106. The total resources proposed for the biennium 2012-2013 for the implementation of the initiative amount to $13.1 million, comprising $2 million in regular budget resources, $8.2 million from the support account and $3 million from extrabudgetary funding sources. The previous proposals for structural review project 1, Globalize service desks (see A/65/491) and customer relationship management (see A/62/501/Rev.1) amounted to some $24 million (see annex VII below). The Secretary-General indicates that the requirements for his current proposal were reduced through the adoption of a phased approach and by leveraging previous investments and existing systems to the maximum extent possible. The estimated requirements of $13.2 million for Secretariat-wide implementation activities during the biennium 2012-2013 are broken down as follows: (a) $165,000 for travel of staff; (b) $11,103,500 for contractual services, comprising $3,947,300 to license service desk and workstation toolsets and $7,156,200 for contractual personnel; (c) $443,300 under general operating expenses for common support costs related to the contractual personnel proposed; (d) $1,166,100 under supplies and materials to cover the costs related to the establishment of regional service centres; and (e) $274,000 under furniture and equipment to cover the costs of the additional servers required for the infrastructure of the service desk software. The Advisory Committee notes that the totality of the resources proposed are for one-time costs that would no longer be required after full implementation of the initiative (see para. 81 above).

107. **The Advisory Committee believes that the Secretary-General's proposal for the replacement of a majority of the existing 131 information technology service desks with three global service centres has far-reaching implications and would have an impact on the day-to-day operations of United Nations duty stations worldwide. The Committee is not convinced that, at this stage, all the possible ramifications of such an initiative are fully known or understood. Moreover, the Committee is of the view that it will only be possible to determine the full extent of the requirements for service desks once a clearer**

picture emerges of the service delivery model that will be adopted by the United Nations and the manner in which the current fragmentation of applications and infrastructure will be reduced (see para. 83 above). The Committee therefore considers that the Secretary-General should proceed with implementation activities in a gradual manner, identifying features that could be postponed without jeopardizing implementation of the overall initiative, and seeking further opportunities for lowering implementation costs. In view of the above, and taking into account its observations in paragraph 79 above, the Committee recommends that the Secretary-General be authorized to proceed with the implementation of the Enhance ICT service delivery initiative, but at reduced cost and scope.

4. Create resilient information and communications technology infrastructure

108. The fourth initiative, Create resilient ICT infrastructure, presents a reformulated proposal integrating Structural review project 2, Streamline data centres (see A/65/491) and the requirements for a unified disaster recovery and business continuity plan for the Secretariat, including a permanent solution for Headquarters, as requested by the General Assembly in its resolutions 63/262 and 63/269 (A/66/94, paras. 113-149).

109. The Secretary-General indicates that the current ICT infrastructure is based on a decentralized approach, focused on the needs of individual duty stations, which was consistently favoured and deemed necessary to ensure reliable infrastructure operations, given that global data communications were not dependable (A/66/94, para. 113). This model of operations is still in use and has resulted in the existence of at least 34 data centres and 177 server rooms across the Secretariat, comprising 18 data centres and 63 server rooms at Headquarters, offices away from Headquarters and the regional commissions, and 16 data centres and 114 server rooms in field missions. With the exception of the United Nations Logistics Base, which provides disaster recovery facilities for field missions, all other duty stations are individually responsible for their own back-up infrastructure.

110. The Secretary-General states that the rationale for continued decentralization is no longer valid, given the significant progress achieved over the past 10 years in facilitating interconnectivity among all duty stations through the new generation of communication technologies. The adoption of an enterprise approach and a shared-services model to support all Secretariat duty stations will lead to savings through economies of scale, gradually reduce the scope of local data centre facilities and provide disaster recovery services to duty stations according to their needs, thereby creating a resilient ICT infrastructure (A/66/94, para. 116). Pursuant to General Assembly resolution 63/269, in which the General Assembly requested the Secretary-General to ensure that the United Nations used enterprise data centres rather than local data centres as far as possible, the Secretariat's strategy shifted towards the enterprise management of ICT infrastructure.

111. The key objectives of the reformulated initiative are to implement two enterprise data centres, one at the United Nations Logistics Base and another at the secondary data centre at Valencia, and to centrally host all enterprise applications, such as Umoja, e-mail, Inspira, iNeed and the enterprise identity management system. Unique, site-specific applications will continue to be hosted in local data centres (A/66/94, para. 121). In paragraphs 127 to 130 of his report the Secretary-

General provides details of the implementation approach, which rests on the following key elements: establishment of the enterprise data centre at the United Nations Logistics Base and a mirror resilience site at Valencia; conformity of all applications to the architecture, policies and procedures of the enterprise and local data centres; standardization of the server and storage environments; virtualization of servers to reduce the number of server rooms; reduction of the existing storage space; management of small locations remotely; and utilization of iNeed at all locations. The Secretary-General indicates that the streamlining of data centres, which reduces the number of data centre locations and provides an enterprise approach to server and storage management, will also facilitate and lower the costs for the provision and maintenance of disaster recovery capabilities. The Advisory Committee notes that the Office of Information and Communications Technology and the Department of Field Support collaborated to formulate the implementation approach to make the infrastructure ready for the global field support strategy and Umoja.

112. The qualitative and quantitative benefits expected through the implementation of the initiative are described in paragraphs 124 and 125 of the report. With regard to the qualitative benefits, the Advisory Committee notes that the implementation of the Create resilient ICT infrastructure initiative will allow an increase in data centre performance and availability; an augmentation of disaster recovery capabilities and business resilience, ensuring thereby that the Organization can continue to operate during and after crises; and the promotion of sustainable use of ICT through a reduced number of physical servers and reduced consumption of power. With regard to the quantitative benefits, the Secretary-General's estimates for overall annual savings expected after full implementation of the initiative at Headquarters and at offices away from Headquarters are estimated at between $17.9 million and $26.9 million, comprising savings resulting from: the introduction of software to provide one source for all e-mail archives at the United Nations Logistics Base ($1.3 to $2 million); the elimination of duplicate files ($1.3 to $2 million); reduced requirements for equipment and labour resulting from the hosting of enterprise applications in one location for all duty stations ($2.8 to $4.2 million per enterprise application); reduced requirements for server and storage labour resulting from the use of a reduced set of server and storage management and monitoring tools ($5 to $7.5 million); and the migration of local server rooms to enterprise data centres ($5.4 to $8 million). The Committee notes that current annual expenditure on data centres at Headquarters and at offices away from Headquarters amounts to approximately $104 million, comprising $54.2 million for staff costs for approximately 552 full-time equivalent employees, and $49.6 million for equipment. The Committee also notes that the figures provided above do not include savings achieved at field missions, which are to be reported by the Department of Field Support (A/66/94, para. 126).

113. The Secretary-General states that a key strategy of the reformulated initiative was to build on the significant investment already made in the enterprise data centres at the United Nations Logistics Base and at Valencia for peacekeeping operations to provide a resilient platform for the deployment of enterprise applications. He indicates that requirements for 2012-2013 were reduced by adopting a phased approach to implementation, fully leveraging internal capacities and existing Department of Field Support investment in the United Nations Logistics Base and reducing requirements for capital investment through leasing

instead of purchasing. In addition, the Secretary-General states that a number of factors were taken into account in developing the reformulated proposal, such as the continued improvements made in the context of the capital master plan at Headquarters and of the United Nations Logistics Base, the construction of the secondary data centre at Valencia and ongoing network upgrades to enable high-speed and multiple path connections across major duty stations, which are expected to be implemented early in 2012.

114. The total resources proposed for the biennium 2012-2013 for the implementation of the initiative amount to $9.8 million, comprising $1.5 million in regular budget resources, $6.1 million from the support account and $2.3 million from extrabudgetary funding sources. In comparison, the costs of the previous proposals for the structural review project for streamlining data centres and developing a unified disaster recovery and business continuity plan were estimated at $15.8 million (see para. 113 above; see also annex VII below). The overall proposed resource requirements of $9.8 million comprise the following: (a) $511,200 for general temporary assistance equivalent to one post at the P-5 level to lead efforts to operationalize the enterprise data centres at the United Nations Logistics Base and the United Nations Support Base at Valencia and the integrated management information system (IMIS) disaster recovery initiatives; (b) $4,369,500 for contractual services, comprising $2,230,200 for software licences for server and storage management tools and $2,139,300 for the engagement of contractual service personnel for project management and other functional and technical work; and (c) $4,947,200 under furniture and equipment, for infrastructure equipment necessary for the e-mail archival project and for setting up enterprise servers and storage tools. The Advisory Committee notes that the totality of the resources proposed are for one-time costs that would no longer be required after full implementation of the initiative (see para. 80 above). In addition, the Secretary-General states that requests for additional funding for future phases of the initiative will be submitted as part of the appropriate budget cycles of the United Nations Secretariat.

115. **The Advisory Committee notes that implementation of enterprise data centres and of disaster recovery and business continuity is an ongoing effort. To date, these activities have been undertaken separately for peacekeeping and the rest of the Secretariat. The Committee considers that the Secretary-General's proposals respond to the General Assembly's request for a unified disaster recovery and business continuity plan and recommends that the General Assembly approve implementation of the Create resilient ICT infrastructure initiative. Bearing in mind its observations in paragraph 79 above, the Committee recommends that the Secretary-General should be requested to seek further opportunities for lowering implementation costs and identify features that could be postponed without jeopardizing implementation of the overall initiative.**

116. **The Advisory Committee also recommends that the Secretary-General be requested to provide, in future progress reports, a comprehensive picture of the totality of resources dedicated Organization-wide to creating resilient infrastructure, including for field missions.**

D. Conclusions and recommendations

117. **Taking into account its recommendations in paragraphs 89, 99, 107 and 115 above, the Advisory Committee recommends that the General Assembly establish 1 D-2 post under section 30 and approve general temporary assistance equivalent to 7 P-4 positions to provide additional capacity for the Office of Information and Communications Technology in 2012-2013. It further recommends that the Assembly also approve total resources in the amount of $19,969,450 for the biennium 2012-2013, representing 50 per cent of the non-post resources proposed in the amount of $39,938,900 for the implementation of activities in connection with the Improve enterprise ICT management, Leverage knowledge through ICT, Enhance ICT service delivery and Create a resilient ICT infrastructure initiatives.**

118. The actions to be taken by the General Assembly are set out in paragraph 153 of the Secretary-General's report. **Taking into account its recommendations in paragraph 117 above, the Advisory Committee recommends that the General Assembly:**

(a) **Note that, should the establishment of 1 D-2 post for the biennium 2012-2013 be approved, the cost of the delayed impact is estimated at $217,200;**

(b) **Note also the proposal for the total resource requirements for the biennium 2012-2013, which are estimated at $21,568,450, to be distributed as follows:**

(i) **Regular budget: an amount of $2,843,123, under section 30, Office of Information and Communications Technology, and an amount of $392,145, under section 29D, Office of Central Support Services, of the proposed programme budget for the biennium 2012-2013;**

(ii) **Support account for peacekeeping operations:**

a. **An amount of $3,343,110, to be financed as an additional appropriation from the support account for peacekeeping operations for the financial period from 1 July 2011 to 30 June 2012;**

b. **Future remaining requirements in an estimated amount of $6,686,220 would be considered in subsequent support account for peacekeeping operations requirements for the financial period from 1 July 2012 to 30 June 2013;**

c. **Future remaining requirements will be included in subsequent support account for peacekeeping operations requirements in an estimated amount of $3,376,775 for the financial period from 1 July 2013 to 30 June 2014; $67,332 for the financial period from 1 July 2014 to 30 June 2015; and $33,666 for the financial period from 1 July 2015 to 30 June 2016.**

(iii) **Extrabudgetary resources: an estimated amount of $4,960,744 of the overall cost of all projects for the biennium 2012-2013 would be financed from extrabudgetary resources.**

(c) Approve an amount of $3,235,268, under the proposed programme budget for the biennium 2012-2013, for section 30, Office of Information and Communications Technology ($2,843,123), and section 29D, Office of Central Support Services ($392,145);

(d) Approve an amount of $3,343,110, under the support account for peacekeeping operations for the financial period from 1 July 2011 to 30 June 2012.

Annex I

Business processes by Umoja implementation phase, functional area and group

A. First implementation phase, Umoja Foundation

This implementation phase focuses on processes critical to IPSAS compliance, such as finance, procurement, travel, assets, inventory and property management.

Functional area	*Number of processes*
Finance	68
Central support services	13
Human resources	0
Supply chain procurement logistics	35
Programme and project management processes	3
Total	**119**

Functional group	*Number of processes*
Conference and event management	0
Facilities management	3
Service management	0
Project management	3
Service to public and staff — income generating	5
Travel management	5
Cash management and treasury	18
Cost and management accounting	8
Programme management	0
Financial accounting	29
Financial management	13
Strategic enterprise planning	0
Organization management	0
Payroll	0
Position budgeting and control — post management	0
Time	0
Workforce management	0
Plan and manage	0
Source to acquire	19
Receive to distribute	7
Employ to dispose	9
Force management	0
Total	**119**

B. Second implementation phase, Umoja Extension

The second implementation phase focuses on those processes required to enhance planning and resource management, including human resources, budget formulation, conference and events management, grants management, sales and services to the public, document production and distribution, force planning, demand planning and logistical execution.

Functional area	*Number of processes*
Finance	56
Central support services	33
Human resources	61
Supply chain procurement logistics	35
Programme and project management processes	13
Total	**198**

Functional group	*Number of processes*
Conference and event management	16
Facilities management	6
Service management	5
Project management	6
Service to public and staff — income-generating	2
Travel management	4
Cash management and treasury	0
Cost and management accounting	-3
Programme management	7
Financial accounting	7
Financial management	49
Strategic enterprise planning	3
Organization management	4
Payroll	10
Position budgeting and control — post management	7
Time	8
Workforce management	32
Plan and manage	16
Source to acquire	1
Receive to distribute	10
Employ to dispose	3
Force management	5
Total	**198**

Annex II

Measures to expedite recruitment following the decisions made by the Umoja Steering Committee at its meeting on 16 November 2010

Measures taken to expedite recruitment following the decisions made by the Umoja Steering Committee at its meeting on 16 November 2010 included the following:

- Delegation of selection approval to the Umoja Project Director for vacancies at the P-4 level and below
- Commencement of reference checks in parallel with central review body's review
- Recirculation of readvertised vacancies for which no qualified candidate applied for 30 instead of 60 days
- Prompt action on Umoja recruitment taken by focal points in the Executive Office and the Office of Human Resources Management
- Instructions from the Under-Secretaries-General of the Department of Field Support and the Department of Management to their senior staff to release needed subject matter experts and to nominate interview panel members for the selection of candidates for vacancies
- Improved cooperation within the Umoja team on recruitment activities.

Annex III

Breakdown of costs of Umoja training

Total population	40,890
Estimated number of end users	10,429

Breakdown of total costs	
Trainer daily subsistence allowance	$2 336 603
Trainer travel costs	$2 255 775
Total cost	**$4 592 378**

Phase 1: Umoja Foundation

	2012	
	Training of trainers	*Cluster 1*
Estimated end users	Not applicable	2 304
Number of training centres	1	3
Daily subsistence allowance cost	$270 000	$589 064
Travel costs	$268 740	$628 443
Total	**$538 740**	**$1 217 507**

	2013			
	Cluster 2	*Cluster 3*	*Cluster 4*	*Cluster 5*
Estimated end users	1 151	1 206	2 961	861
Number of training centres	3	3	4	5
Daily subsistence allowance cost	$360 099	$363 947	$366 281	$387 212
Travel costs	$314 221	$314 296	$338 140	$391 935
Total	**$674 321**	**$678 242**	**$704 421**	**$779 147**

Total costs 2012 and 2013: $4,592,378

Annex IV

Initial findings of system-wide study of the United Nations organizations that have implemented enterprise resource planning systems

- Organizations that had successfully implemented enterprise resource planning indicated that support from the highest levels of management was consistently demonstrated and manifested to all stakeholders — governing bodies, key officers, staff and external parties like vendors, banks, clients or partners.
- Many organizations started with a very ambitious plan — scope, timeline, availability of staffing resources (skills) — and underestimated financial requirements. Many of them had to de-scope during project execution even if they planned to implement in phases.
- Initially, project management always assumes that it is easy to co-opt business owners and their staff and obtain their approval or agreement to the design or blueprint or to getting their most knowledgeable staff into the project. Many organizations found this more difficult than anticipated.
- Those organizations that were upgrading their enterprise resource planning and were at the same time implementing other initiatives (human resources reform, results-based management, business continuity, ICT strategy, IPSAS) tried to integrate them all into one common framework (by having the same steering committee, the same project management, etc.).
- Business process re-engineering and restructuring is a continuous process and does not end when the system goes live.
- Timely decision-making was crucial and had to be balanced with appropriate adherence to regulations, rules and policies; competing priorities across the organization; effective risk management; and reporting lines between senior management and project management.
- Timelines were ambitious and tight, resulting in either postponement of the go-live date or reduction in scope.
- Managing the relationship with the vendor or implementing partner was a challenge because of the potential impact on costs and the timeline.
- The time and effort needed for comprehensive data cleaning were underestimated, resulting either in legacy systems being maintained or in uncleaned data being migrated to the new system, if it was decided to decommission the legacy systems.
- The costs of ownership, upgrades and licences continue to be high for organizations.
- Organizations continue to be challenged as to how to measure the realization of benefits or identify and assess key performance indicators. Anecdotal evidence and some trends (processing time, production of key reports, dashboards) are usually the way benefits are reported.

- The more successful examples of implementation involved the active engagement of the oversight bodies (internal and external auditors) and periodic assessment by outside experts for quality assurance.
- The more informed in a timely fashion the governing bodies were, the more supportive they were of the projects.
- There is a need for the organizations to invest in building up the skills of staff with regard to the new enterprise resource planning system. While there is a need to recruit outsiders with appropriate expertise, during the duration of the project there should be extensive knowledge transfer.

Annex V

Composition of the costs to be supported by Umoja user departments

In connection with the implementation of Umoja, the following activities and their associated costs are not included in the Umoja budget. It should be noted that analysis of these activities is ongoing and therefore not definitive.

Data preparation and cleansing

Business expertise and staff resources are required for the identification of the current master data in support of the processes that are included in the Umoja Foundation scope. Data will require cleansing and enriching in accordance with Umoja master data templates which have been created for this purpose. The cleansing activity will predominantly take place within the business area that owns the legacy system.

The key master data elements identified in support of the Umoja Foundation phase include:

- Vendor
- Material
- Service
- Employee
- Customer
- Equipment
- Assets
- Real estate
- Cost centres
- Funds

Document data

Business expertise and staff resources are required to identify and clean current business documents which reference master data. The key documents include:

- Purchase orders
- Global/local contracts
- Sales orders
- Lease agreements
- Memorandums of understanding
- Inventory balances
- Accounts receivable/accounts payable balances
- Employees

Migration, validation and reconciliation

The business areas need to work with the Umoja team in the verification of converted/migrated data to ensure accuracy and consistency with expected results (especially in the case of migrating outstanding balances).

Interfaces with critical business systems

There will be a need to develop some interfaces between Umoja and critical business systems, especially during the roll-out period.

System validation

User acceptance testing requirements

The completion of testing of the Umoja system will require key business user staff (who may transition into "coaches") to validate the Umoja configured business processes.

Infrastructure

In support of the enterprise resources planning business software, the business will be required to:

- Test/assure system connectivity
- Update/upgrade personal computers/laptops to run the enterprise resource planning system
- Provide access to legacy data for reference purposes/reporting for an appropriate period in support of the business requirements
- Archive and provide appropriate access to historical/legacy data upon the decommissioning of the legacy system

Implementation and training

Champion

A nominated and approved organizational leader will be required for the Umoja reform initiative for each function/mission/organization to support the preparation of data and training, and to resolve issues and facilitate implementation.

Coach

The coach, locally based and with a part-time role, will be responsible for supporting the instructor in classroom training delivery (for local duty stations), helping to resolve/address local participant queries, and providing end-user support in the post-implementation period.

Training coordinator

A locally based part-time coordination expert will be responsible for executing deployment preparation tasks in collaboration with the central Umoja learning team. The training coordinator's responsibilities include gathering local training participant data for role mapping purposes, reviewing local training

facilities/infrastructure and developing contingency plans where there are constraints, planning participant travel and final preparation of training classrooms.

Provision of training facilities

The deployment of the foundation phase of Umoja will require the identification of adequate facilities for training end-users.

Planning manager

The planning manager will be responsible for working with the Umoja team to ensure the overall readiness of the organization/mission for all implementation phases.

Cutover manager/team

The cutover manager/team will be responsible for planning and preparing the organization/mission, in coordination with the Umoja readiness team, for the migration of the business unit from the legacy application to Umoja.

Annex VI

Summary of changes between the current and previous proposals

Initiative	*Previous proposals*	*Changes and impact*
A. Improve enterprise ICT management	• Rationalize ICT organization (A/65/491) • Strengthen the Office of Information and Communications Technology (A/65/491)	• Two previous proposals have been integrated • No change in approach or funding request to rationalize ICT organization • Reduced request for new Office of Information and Communications Technology posts in 2012-2013, from 23 to 14 • Delaying requests for additional Office of Information and Communications Technology posts until the Rationalize ICT organization project results are available
B. Leverage knowledge through ICT	• Report on enterprise content management (A/63/477)	• Scope of initiatives narrowed • Proposed phasing of implementation • Leveraging of knowledge management activities within existing resources
C. Enhance ICT service delivery	• Globalize service desks (A/65/491) • Customer relationship management (A/63/477)	• Two previous proposals have been integrated • Leveraging of existing investment in iNeed and the enterprise identity management system, and the use of existing facilities • Revised costs are significantly lower than the original estimate
D. Create resilient ICT infrastructure	• Streamline data centres (A/65/491) • Unified disaster recovery plan (A/63/774)	• Two previous proposals have been integrated • Capital investment reduced through leasing instead of purchasing • Advantage taken of existing Department of Field Support investment in the United Nations Logistics Base • Approval of the United Nations Logistics Base and the United Nations Support Base at Valencia as enterprise data centres • Revised costs are significantly lower than the original estimate

Annex VII

Cost comparison between the current and previous proposals

Current proposal	*Previous proposals*	*Cost reduction factors*
A. Improve enterprise ICT management	A/65/491 Structural review project 3, Rationalize ICT organization Structural review project 4, Strengthen the Office of Information and Communications Technology	• Reduced request for new Office of Information and Communications Technology posts in 2012-2013, from 23 to 14
Total $8.4 million	**Total $9.7 million**	
B. Leverage knowledge through ICT	A/62/510/Rev.1 Report on enterprise content management	• Implementation phased to begin with pilots to demonstrate success, then replicate them across the Secretariat • Leveraging of knowledge management activities within existing resources
Total $11.5 million	**Total $14.5 million**	
C. Enhance ICT Service Delivery	A/65/491 Structural review project, Globalize service desks A/62/510/Rev.1 Customer relationship management	• Leveraging of existing investment in iNeed and EIDMS, and the use of existing facilities • Phased implementation • Leveraging of customer relationship management activities within existing resources
Total $13.1 million	**Total $24 million**	
D. Create resilient ICT infrastructure	A/65/491 Structural review project 2, Streamline data centres A/64/477 Unified disaster recovery plan	• Reduced capital investment through leasing instead of purchasing • Leveraging of existing Department of Field Support investment in the United Nations Logistics Base • Initiative aligned with ongoing organizational resilience management system and Business Continuity Management Unit efforts • Utilization of open source tools for server and storage monitoring and management
Total $9.8 million	**Total $15.8 million**	
Current proposals	Previous proposals	• Reduction of 33 per cent compared to previous proposals
$42.8 million	**$64 million**	

Annex VIII

Progress made since 2009

Initiative	*Progress*
Improve enterprise ICT management	• Structural review undertaken to rationalize ICT organization and strengthen the Office of Information and Communications Technology • ICT functions and sourcing principles defined • OICT organizational review completed • A new ICT governance framework established • A client services function established • Several ICT policies and standards developed • Secretariat-wide ICT budget proposals reviewed
Leverage knowledge through ICT	• Policies and standards issued by the Working Group on Knowledge Management • Enterprise content management platform procured and set up • Collaboration tools selectively deployed • Document and records management and information portal piloted • ODS search improved, along with that of other repositories
Enhance ICT service delivery	• Structural review undertaken to propose globalized service desks •. Further development of iNeed and enterprise identity management system functionality • Progress made on a global service catalogue • iNeed deployed to United Nations Headquarters (Office of Information and Communications Technology, Department of Field Support, Department of Management, Office for the Coordination of Humanitarian Affairs), the United Nations Logistics Base, the United Nations Interim Force in Lebanon, the Economic and Social Commission for Western Asia and the United Nations Office at Geneva (Office for the Coordination of Humanitarian Affairs)
Create resilient ICT infrastructure	• Structural review undertaken to propose streamlined data centres • Functionality of existing disaster recovery and business continuity projects aligned and leveraged • Approval obtained for the United Nations Support Base at Valencia as the mirror site to the United Nations Logistics Base at Brindisi • Enterprise data centre concept approved • Primary and secondary data centres established at United Nations Headquarters as part of the capital master plan; United Nations Office at Geneva data centre updated